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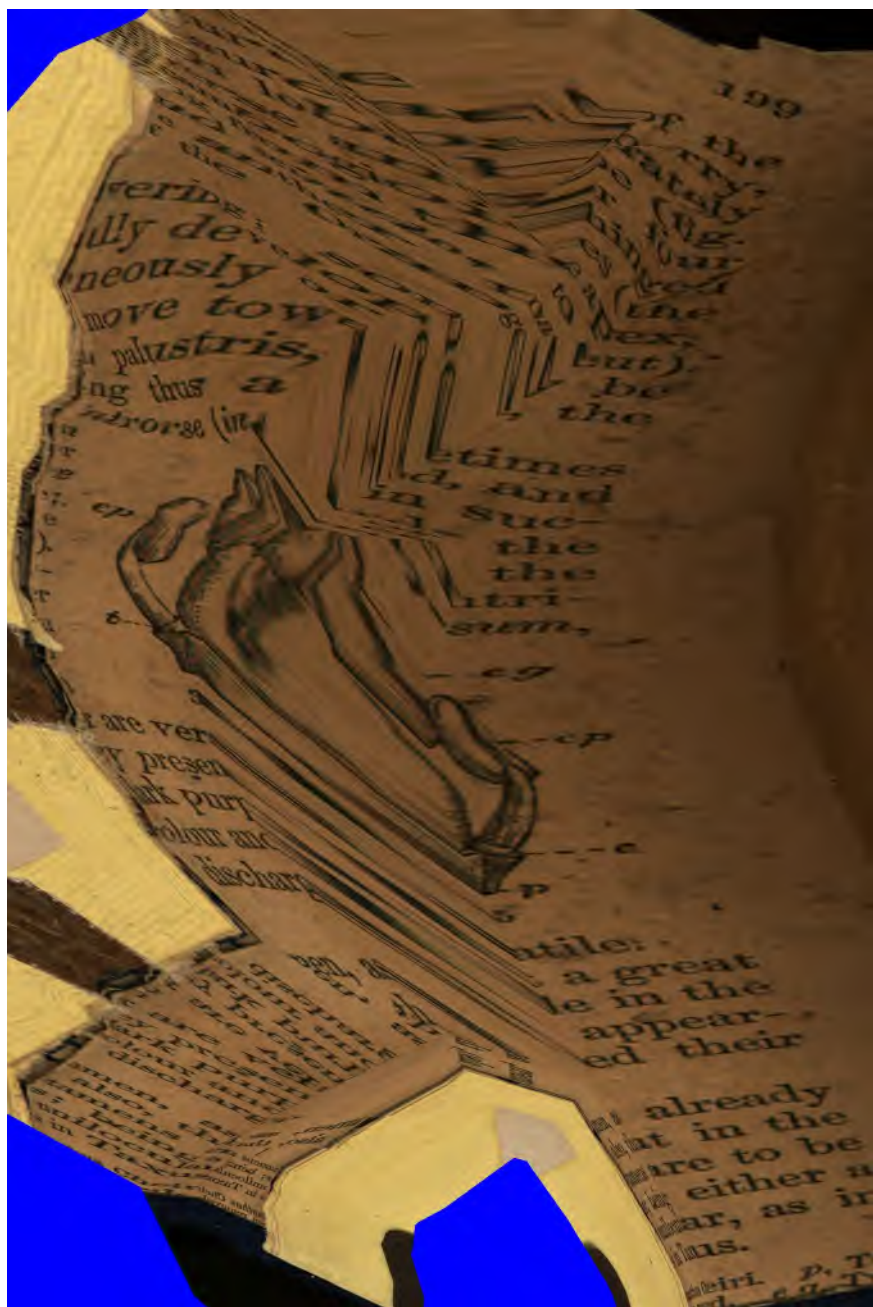
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THE

IMPORTANCE OF LITERATURE

TO

MEN OF BUSINESS:

A

SERIES OF ADDRESSES

Delivered at Various Popular Institutions.

REVISED AND CORRECTED BY THE AUTHORS.

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DELIVERED AT VARIOUS LITERARY IN

BY THE FOLLOWING GENTLEMEN:

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PREFACE

THE multitude of Popular
sprung up in Great Britain
years—for the avowed purpose
for mental culture and the
knowledge—is one of the most
philanthropist, one of the most
of the times. There was a period
held as a sort of dogma that the
existence separated mankind into
the *many*, whose doom was philo-
apathy; and the *few*, whose
repose and intellectual activity
slowly passed away. A long
with the concomitant blessings
discoveries and great communi-
diminished the exigencies and
of mere manual labour; and, as
by common consent, the *man*
prerogative which belongs to the

after some little doubt and hesitation—for it indicated the commencement of a new order of things—has at length been fully and fairly recognised. It is now considered an established truth that the education of the masses is not only perfectly consistent with the discharge of the ordinary duties incumbent on them in life, but that, to afford them such education, is the surest of all methods by which to elevate and advance the general character of the nation.

Inspired by this belief, men, distinguished in some instances by great scientific and intellectual attainments, and in others by high birth and elegant accomplishments, have come forward to lend willing and earnest aid to the cause of social progress through the diffusion of knowledge. In so doing, they have not more than responded to the anxious wishes of the people themselves, who, in all the larger cities and towns, and even in some less populous places, have busied themselves in forming Associations which, whether under the name of Athenæums, Schools of Art, Mechanics' Institutions, or Philosophical Societies, are all happily animated by kindred objects. The scholars, philosophers, successful writers, statesmen, and other influential men of the day, by personally presenting themselves from time to time among the ordinary members of these Associations, have often strengthened and encouraged them, filled them with

new ardour, and shown them how they may best avail themselves of at least a portion of those treasures which the wisdom and the industry of this world's sages has accumulated.

It occurred to the publishers of the present volume that some interest would be excited, and some good would be done, by collecting together, for the first time, and offering to the reader, within a moderate compass, and at a moderate price, a number of the most successful of those Addresses which have of late years been delivered by eminent persons to Popular Institutions. On communicating their design to the Authors of such addresses—many of which had only appeared in ephemeral publications—they were in every instance met in the most liberal spirit; and the compositions were not only freely placed at their disposal, but they were in many instances specially revised and corrected.

It is submitted, with some confidence, that the anticipations which had been formed of the probable value of such a work have not been erroneous. It will be seen from the contents that not a few of the master minds of the age have availed themselves of the opportunities afforded by the institutions in question to manifest the deep interest they take in the great cause of the education and moral and intellectual improvement of the people. The manner in which

they enforce their views is of course as varied as the constitution of the minds that have been brought to bear upon the subject; but there is none of the Addresses that may not be read with profit, while some are replete with the most interesting information,—some with admirable suggestions for the practical conduct of life,—some with the grand truths of science,—and some with philosophical argument and high-toned eloquence. It was surely desirable that such productions should not be allowed to be scattered abroad like the sibyl's leaves. Individually, they were calculated to elevate and inspire the particular Associations to which they were addressed; collectively, and in a permanent form, they contain a code for the regulation or guidance of all the members of all the Associations. They present a hand-book to every young man desirous of making the most of his leisure hours, and of being directed by those most capable of giving advice in the prosecution of mental improvement. In the perusal of such a volume the reader may taste, in the eloquent words of one of the speakers whose Address it contains, "*that profound and solemn pleasure which men of right temper must ever feel when it is their privilege to commune with heart-beating in unison concerning the greatness and of this wonderful universe.*"

MERCANTILE LECTURE,

DELIVERED BEFORE

THE MERCANTILE ASSOCIATION OF NEW YORK,

IN 1832,

BY GULIAN C. VERPLANCK.

I CONGRATULATE you, Gentlemen of the Mercantile Association, on the occasion which brings us together. Your institution, founded for the moral and intellectual improvement of the commercial youth of this city, has long been eminently useful. Its judiciously selected library and well supplied reading-rooms, with the excellent lectures and addresses heretofore delivered in this hall, have proved not less honourable to the zeal and public spirit of its founders, than important in their effects on the character of an immense body of young men full of ardour, intelligence, and enterprise, who are, year after year, carrying into active life the deep and lasting influences of their present pursuits and amusements.

Surrounded as they are on all sides, in this gay and opulent city, with temptations to idle dissipation or

them are, from the salutary restraint imposed by the sanctity of the parental home, and deprived of its resources of domestic fireside pleasures, they have discovered in these halls amusements, ever new and fascinating, innocent and intellectual. Here they have met associates and found friends eager in the same pure enjoyments. Here they have been led from harmless entertainment to useful reading, and thence onward to the most noble and invigorating exercises of the mind in the study and contemplation of physical and moral truth.

But the course of lectures which has been arranged for this winter, forms a new epoch in the progress of this association. It is not merely that fresh and valuable sources of information will now be opened. That is much. But I cannot but regard the number, the talent, and the well-earned reputation of those public-spirited citizens who have volunteered to deliver the several courses, as giving a most flattering testimony to the value of this institution. It is a proof of the deep public interest taken in the character and welfare of our commercial youth, whilst at the same time it must furnish to them motives of kindling excitement in the pursuit of all that can exalt and dignify the character of an American merchant.

These gentlemen, severally and honourably distinguished in the law, science, fine arts, literature, politics, and public eloquence of the country, divided in many points of opinion, but uniting in a generous zeal for the public good, have, amidst the pressure of private avocations, found or made time to devote a portion of

~~The~~ir talents and acquirements to the instruction and amusement of those whom I now address. It will not be invidious to distinguish amongst them two venerable and patriotic men, one of whom, for years, administered with masterly ability our national finances, or was engaged in the negotiation of treaties involving our dearest interests ; * whilst the other presided, for nearly as long a period, in the highest courts of common law and of equity in this rich and populous state, with a reputation that cannot be increased by any praise of mine.† Such are the men who now delight to unfold to the young inquirer the elements of those sciences on which their own fame was founded. This is an example worthy of republican antiquity, honourable to our state of society, and especially honourable to you, for whom the labour was undertaken. Let it be also to us and to you an animating example of unceasing and unflagging devotion to the common good, and the welfare of others.

I cannot but feel it as a high compliment to have been invited to deliver an introductory lecture to such a course of instruction, and for this I tender my most grateful acknowledgments.

The lectures intended to be delivered here, though by men intimately and extensively conversant with the subjects they have selected, must yet, from the narrow compass to which they must be confined, be

broad views and leading principles, as well as point out the sources of more minute and accurate knowledge; but they will not, nor do they profess to make you masters of any of those extensive walks of science, of art, of taste, or of speculation. To become a proficient in any one of these requires the labour of years; to become skilful in all of them must demand the constant toil of a long and studious life. Of use then to those who can give to such pursuits what more than hasty and broken intervals of little minds distracted by other duties and other cares—of what real use is that general and superficial information to be gained by these and similar aids?

The question is natural, and it is important. I have, therefore, thought that the reply to it, showing the true advantages of general knowledge to men engaged in active business, would be no inappropriate or unfruitful subject for this introductory lecture.

Upon this head the pedantry of erudition, and the pedantry of worldly wisdom are for once agreed in uniting to despise and degrade such acquirements; the one, viewing them as leading only to vanity and self-conceit, and the other, as a trifling waste of time to no practical purpose.

Pope, a poet distinguished above his brethren for sagacity and shrewdness of observation upon men and manners, has said—

"A little learning is a dangerous thing;
Drink deep, or taste not the Pierian spring:
There, shallow draughts intoxicate the brain
And drinking largely sobers us again."

This opinion, so agreeable to the pride of learning, has been re-echoed by thousands with whom no poet would be an authority on any other question, until it has almost become an adage. Like all remarks of acute observers, and like all maxims obtaining any currency, this too has its share of truth; had it not so, it would never have been received as true. But it is true only of the smatterer in every thing; it is true only of him who has never disciplined himself to any regular pursuit whatever; of him whose superficial acquirements are not the recreations of an active and useful life, nor the decorations of a mind exercised in other and solid avocations.

Of the vague knowledge of such a man, pride and conceit may well be the result, but they are much more frequently its cause. All human knowledge, however learned arrogance may strive to disguise it, is but little. This then is truly but a question of more or less. The profoundest scholar—the man of the rarest and loftiest science, who loses sight of this truth, and forgets the immensity of the Unknown, in gazing fondly upon his own little treasure of fancied science, may be as truly intoxicated by such comparatively shallow draughts, as the most superficial sciolist, whom he scorns. And this intoxication, too, if we can trust to frequent observation, is far more likely to befall the professed, but trifling scholar, than the accurate man of business, who seeks in books a refreshment from toil, or who flies to science to satisfy

mind was formed to covet and grasp at its attainment. It is an innate desire, springing from the highest appetencies of his nature, the desire and the object of it being alike the kind gifts of his Creator.

Let us for a moment pause, and cast a rapid glance at the means of intellectual accomplishment which in this age and country, nay, in this very institution, are within the reach of any young man, who, without defrauding his daily calling of a single duty, or a single thought due to it, will yet devote to better objects those hours which might be passed in indolence or folly.

Let us suppose these hours faithfully and judiciously employed for a few years, and then estimate fairly the amount and the value of the information thus accumulated. Let us see whether the knowledge thus rewarded his liberal curiosity, and which must confessedly fall short of the accuracy and extent of that science, won by the exclusive votary of learning, is yet in any sense worthless or little.

It has been justly remarked by more than one philosophical observer, that there is in the nature of our mental operations and of language,—in the power of classifying insulated facts and discoveries under general terms and broad laws of universal application,—in the corresponding power of again deducing individual truths from these general laws,—a provision for the gradual and progressive improvement of mankind. As knowledge is extended it becomes more easy of acquisition; for as the magnitude and the variety of known truths are augmented

same proportion the processes of study necessary to acquire them have been abridged and simplified.

An eloquent French mathematician, in a frequently quoted passage,* has admirably illustrated this truth by the history of mathematics, from the elementary propositions of geometry, treasured up by the Egyptian priesthood, down to the conclusions that have limited the last inquiries of the modern calculus. He has shown throughout the whole, how every discovery of genius has been accompanied or followed by a simplification of science, making these discoveries level to the comprehension of all.

Thus it is, to apply this truth to our own case, that the leisure hours of the modern merchant, should he give that direction to his studies, will soon place him far beyond the mathematical attainments of the most skilful of the doctors or professors of Padua or Paris, two centuries ago. That acquaintance with the branches of mathematics, entering into the familiar uses of life, such as to the mathematician of our own day may well seem a "little learning," indeed, was but two or three generations ago the proudest boast of those who had drunk longest and deepest at the head springs and fountains of the severer sciences. Now, surely, the knowledge so valuable then, can have lost nothing of its real value in use by losing much of its rarity, and becoming more easy of access.

Let us select from
ages some great man
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powerful intellect
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whose eloquence
study, and who
of his country
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please and soothe old age. They adorn prosperity, they afford a refuge and consolation in adversity. They delight at home, they are useful abroad. They are with us and about us, by day and by night, on the road and in the fields."

Such was the ardent eulogy which the most accomplished man of antiquity poured forth on his favourite studies in one of the most magnificent effusions of his genius. It was doubtless just; and yet the amount of useful acquirement and elegant accomplishment—deserving, as it did, all his toils and all his praise—that this great man could attain, not only by diligent study, but by travel extensive as the then known world, and by wealth and power, devoted to the collection of books and works of art—all this was far inferior to that within the reach of any one who now listens to me.

This assertion may seem absurd. Its apparent extravagance may provoke a smile, yet the slightest analysis will convince us of its substantial truth. The orator, philosopher, and statesman, of the Roman republic's last age, had studied under the first teachers of Athens, then still "the mother of arts and school of sages," all that the times knew of physical philosophy.

for a wise man to form any definite opinion on the laws of nature. He turned away from the study of the material world dissatisfied, declaring, with Socrates, that such inquiries were rather curious than profitable.

Let us now look upon our own times and country, and mark what are the opportunities of knowledge afforded to those who can employ the hours not engrossed by real business, in attending the lectures of some competent teacher of physical science. Here we, a learned and able professor, with the aid of an apparatus in which the most recondite discoveries of science are experimentally illustrated by some series of most ingenious and delicate productions of the skill, can unfold to the attentive pupil the great laws of attraction and repulsion, of motion, of mechanics, and of light. These are laws generalized from thousands of observations and experiments, perhaps destined hereafter to be more accurately ascertained, or resolved into even still more universal rules, but never to be contradicted or unsettled by any future system. He can guide you to an acquaintance with truths beyond the reach of mere observation, but learnt from demonstration of pure reason; those manifestations of matter and motion, which were as felt to be beyond the reach far beyond the extend through be inf as it all-w Ir

atmosphere, or resolving the globe into its constituent elements; and now descending with patient industry to the aid of the dyer at his vat, or the metallist at his furnace; or to throw the friendly light of her safety-lamp over the perilous path of the miner in the dark bowels of the earth.

Now then, let me ask, is such knowledge, be it general, be it comparatively superficial—can such knowledge be worthless? Had antiquity obtained a prophetic glimpse of that science now laid open to your inquiries, it would have been

“The prophet's prayer, the glad diviner's theme,
The old man's vision, and the young man's dream.”

Must not such knowledge give new interest to all that we see about us? Must it not fill the soul with kindling and ennobling thoughts? Must it not give juster conceptions of the wisdom and benevolence of the Creator, of the powers, the duties, and the destinies of man?

If from natural and chemical we turn to moral philosophy, the same parallel holds good. In that most favourite study of Cicero's, the science of mind and morals, how feeble is the light that glimmered amidst the darkness of ancient discussions and systems;

have kindled the torch of science at a consecrated flame; writers, who, like Fenelon, and Addison, and Johnson, have "given ardour to virtue, and confidence to truth;" or who, like Pascal, Paley, or Butler, have made logic and metaphysics the handmaids of sober piety.

Of history, literature, poetry, the elegant arts, of all that by example unfolds the mysteries of the heart all those fair illusions which spread their charms life, and soothe its pains or anguish, how ample treasure contained in any well-selected English of original and translated authors! How & in amount, in variety, and (with a few exceptions) in excellence, to the treasures Cicero's much-loved collection!

Even in jurisprudence, Cicero's department, the brief and element of commercial law to be delivered you information, which, could the illustrious Roman advocate with delight and astonish the value of that information or men of the world immediate and personal
This is not like some of blind usage or?
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Holland, England and America—much the greater part of it, bearing the test of Cicero's own definition of rational and equitable law, being alike good law at London, Paris, Amsterdam, and New York. Classical latinity does not even contain a name for the contract of insurance. Commerce, the Romans left to be carried on by the slaves or freed men of their patrician senators; and navigation was pursued only with a view to war and conquest. But in our law of insurance, in that of shipping, and of exchange and negotiable paper, those sound and clear principles of reason and natural equity which the old Roman law always asserted in theory, are applied to the most ingenious inventions of modern times, for giving circulation to capital, and facility and safety to commerce.

I know not, then, why you may not with equal, and more than equal justice, apply to your own studies the eulogy of the eloquent ancient upon his. These our studies, may you say, snatched as they are amidst the calls of business, and in hours given by others to indolence or vice, "will nourish and strengthen the youthful mind, and soothe and gladden old age; they will adorn prosperity, and furnish a refuge and consolation in adversity."

The present state of society, thus abounding in the means of instruction, has one marked point of contrast to that of former ages; and it is one which it is the evident tendency of some of the most important


As the aggregate power of society thus increases, the danger is that that of each individual may be narrowed to the limits of his personal occupations. The ancient, like the savage, was called upon to know and to do all that could be known or done by any man of the times and nation. The member of a modern civilized state has frequently but one part to perform. He is but a single wheel or cog in a huge and complicated machine. The inevitable tendency of this is to enfeeble and dwarf the mind of every individual. The mere scholar, the mere lawyer, the mere merchant, the mere artisan, cannot attain the full perfection of his nature, or his full capacity for happiness. But it is an admirable and benevolent provision of Providence, that this very advance of the aggregate wisdom and power of society, thus swallowing up the strength of individuals, carries with it its own corrective, in those very facilities of acquirement of which I have spoken. Thus he who is confined by the order or duties of society to a single round of occupations, can yet find in the leisure left at his own disposal, the opportunity of liberal inquiry, and that variety of content which exercises and disciplines the whole in man.

In this wide survey of knowledge, the to those who have successfully exerted some limited sphere, is rebuked by acquirements beyond their reach. general knowledge makes man more useful, and more happy, it cannot singularly ill constituted, to

humility, so finely called by Burke, "the deep and broad foundation of every virtue."

In addition to these considerations of the benefits of an acquaintance with science to man, in his personal and individual interests alone, there are others, touching the common interests of society. In proportion as knowledge is widely diffused, morals are secured and liberty protected. If there is any circumstance wherein the present age bears an advantageous comparison with preceding times, such as to authorize a rational and confident expectation of the extension and permanence of free institutions, it is to be found here. Probably France and England a century ago contained as many men profoundly skilled in their several departments of science, learning, and art, as they now do; but how different was the state of the general mass.

It was, I believe, Steele who, in describing the learned lawyer of his day, makes his whole conversation begin and end with the great case of Grimbibber. This was, of course, a caricature, but still from the hand of such a master it was probably a likeness, though broad and distorted. But it was also in some degree the portrait of every other class. Civilization had then divided society into its several occupations, but general information had not yet corrected the narrowness accompanying that division. The man of letters was then a mere man of the closet, or else a mere author about town, the dependant of the great and of the the s; and, in either case, equally ignorant of the bstantial business of the world.



As the aggregate power of society thus increases, the danger is that that of each individual may be narrowed to the limits of his personal occupations. The ancient, like the savage, was called upon to know and to do all that could be known or done by any man of the times and nation. The member of a modern civilized state has frequently but one part to perform. He is but a single wheel or cog in a huge and complicated machine. The inevitable tendency of this is to enfeeble and dwarf the mind of every individual. The mere scholar, the mere lawyer, the mere merchant, the mere artisan, cannot attain the full perfection of his nature, or his full capacity for happiness. But it is an admirable and benevolent provision of Providence, that this very advance of the aggregate wisdom and power of society, thus swallowing up the strength of individuals, carries with it its own corrective, in those very facilities of acquirement of which I have spoken. Thus he who is confined by the order or duties of society to a single round of occupations, can yet find in the leisure left at his own disposal, the opportunity of liberal inquiry, and that variety of contemplation which exercises and disciplines the whole intellectual man.

In this wide survey of knowledge, the pride natural to those who have successfully exerted themselves in some limited sphere, is rebuked by comparison with acquirements beyond their reach; and though the general knowledge makes man more useful, and more happy, it can be singularly ill constituted.

the snows of Russia, and the blood-drenched plains of Flanders.

And even now on what foundations rest the hopes, the power, the future protection of the rights and liberties of Frenchmen? Not upon the virtue and wisdom of their chiefs and rulers. Not upon the provisions and pledges of laws and charters. Not even upon that last and sacred resort of an oppressed people, an armed resistance to tyranny when it becomes too grievous to be borne. No, not upon any or all of these, honoured and prized as they may well be; for all of these have heretofore balked the hopes of the patriot and the calculations of statesmen. No, not these, but upon the annually increasing thousands of the men of "young France," whose minds have been opened by various and useful knowledge, who read, who think, and who reason, and who can therefore understand and maintain the duties of their rulers and the true interests of the people.

I need scarcely say that it was to a state of society in this country, wholly different from that of France, as France once was, that our own revolution was chiefly indebted for its calm and prosperous issue.

Here was a public fitted by reading and reflection to comprehend, and to feel the reasoning of the patriots who called upon them to withstand the aggressions of their rulers. Here was a people upon whom the wisdom and argument of the founders of our constitution could not be wasted. Therefore it was, that America alone, of all the nations of the earth, has passed tranquilly from a warlike revolution

to a peaceful and stable republic. This glorious possession of regulated liberty it is for us to preserve by the same means that enabled our fathers to achieve it. The member of an ignorant community must hold his liberties and his property by a precarious tenure. It is only in an enlightened republic that the people know all their rights, and feel all their duties. Above all, it is there only that the rage of faction, which in ignorant democracies has always broken out into bloodshed and violent revolution, is mitigated into fair contests of parties, who strive for victory through the press and at the polls, according to the rules prescribed by the constitution and laws of the country.

But these exalted duties of guarding our civil liberties and watching on the bulwarks of our constitution, though the most precious marks of our constant, often not the most useful privileges of the well-informed and patriotic citizen.

There are numerous subjects of internal legislation, of municipal administration, of the management of the ordinary machinery of society, forcing themselves upon the attention of the most careless, and the most selfish, and affecting the interests and happiness of every man. The questions of currency and banking, and interest and usury, the laws of taxation, and public debt, alike applicable to the finances of an empire, and those of a town, the administration of poor-laws, of charities, of schools, of prisons, of markets, even of pawnbrokers' shops—all these are subjects involving the welfare and comforts of thousands. Un-

may have the assistance of a long-continued and a broad experience, and of the reasoning of good and wise men, so that he who presumes to decide upon any of them from his own first impressions, without consulting those aids, is in his way but a rash theorist. On all these subjects, quackery, under the disguise of plain common sense, self-interest masked as philanthropy or public spirit, are constantly at work. All these questions require in such a government as ours a large and intelligent public, some of them prepared to reason and investigate for themselves, and many well fitted to comprehend and judge.

Considerations of the same nature give a similar value to the general cultivation of literature and of taste in the arts. Most powerful is the sway exercised by those mighty agents over the morals of the community.

Theirs is the potent mastery

O'er the mind's sea in calm and storm,
O'er the heart's sunshine and its showers,
O'er Passion's moments, bright and warm,
O'er Reason's dark, cold hours.*

Whether or no you choose to belong to it, they will form a public for themselves, and they will influence and govern it. Of that public, your friends and neighbours, your wives, and sisters, and children, will be a part.

This influence is everywhere. It pervades the myriads of books which the prolific press pours forth, the daily sheet the light periodical, the popular

* Halleck.

exhibition, the ornaments of our houses, the conversation of our firesides.

The author or artist who has the power of pleasing, has committed to his charge a vast control over the tastes, feelings, and sentiments of all within his reach. But he is himself re-acted upon by those whom he influences. He that hopes to please must accommodate his talent to the tastes and habits of those whom he addresses. "Unhappy Dryden," said the great ethical poet of England, with a touching brevity, as he mourned over the fatal prostitution of his master's genius, dragged down from the pure elevation whither his nature gave him to soar, and forced to grovel in the filth his patrons loved. In the words of another man of genius, * kindred to his own, but of happier fortune and unspotted fame, lamenting over the failure of that poem of epic chivalry which Dryden had planned, in the hope of raising a monument worthy of his own fame and that of his country,—

—“Dryden, in immortal strain,
Had raised the Table Round again,
But that a ribald king and court
Bade him toil on to make them sport;
Demanded for their niggard pay,
Fit for their souls, a looser lay,
Licentious satire, song and play:
The world defrauded of the high design,
Profaned the God-given strength, and marr'd the lofty line.”

Our authors, artists, editors, and publishers, may have a ribald public to deal with as well as Dryden

* Walter Scott.

his "ribald king and court." If your ingenuous minds revolt with disgust at that thought, you will feel it to be your duty to aid in averting such an event by acquainting yourselves with a sound, an undefiled, and wholesome literature, and thus becoming a part—and if a part, then certainly an influential and ruling part—of that reading public. Thus it is that the literature which now serves to amuse your youthful hours, may hereafter be the means of guarding the morality of your own homes from contamination, or of cheering, animating, and aiding the literary talent of your country when directed to its best ends of truth and virtue.

But of a literature thus guarded, thus directed, and thus purified, how rich are the treasures, how excellent, how elevating the influence! Not by barren precept, but by example, by illustration, by constant association with the purest sources of pleasure, it teaches the "noblest morals of the heart;" for in directing the mind to whatever is wise, just, pure, or lovely, it exalts and unsensualizes the thoughts. It emancipates the soul from the bondage of the world, lifting it above the desires, the cares, the meanness, and the follies of the present, and teaching it to reach after, and in part to know, and feel the power and the joys of its future and better being.

I have thus far considered the advantages of a liberal curiosity as confined to the opening of new sources of happiness within ourselves, or as diffusing light and truth over the wide surface of a well informed public. But it would be unjust to the native talent

of my country did I omit one other, and not the least happy of its effects.

I will not meddle with the controversy on the existence or the causes of peculiar original genius—the inquiry whence it comes, that certain individuals are specially fitted for excellence in certain walks of speculation or of art. It is enough that this difference among men does exist. There are minds whose best powers seem to slumber until the excitement of some occupation or study congenial to their faculties, rouses them into gigantic vigour. Now, the acquisition of varied, though it be not profound knowledge, is precisely the most efficient mode of presenting to every ardent and stirring mind the subject best fitted to its powers and tastes. Then it is that natural talent feels its strength. The attention is roused, the curiosity vividly excited, the faculties sharpened. The duties of life need not be neglected, for that would be unworthy of a mind capable of such energies. It tries its strength in solitude and silence; but society, perhaps the civilized world, at last gathers the fruits of those solitary efforts.

Such were the studies and experiments of Benjamin Franklin. I need not dilate on his character, or the incidents of his life, for they are doubtless familiar to you. His unrivalled sagacity and common sense must have given the printer of Philadelphia wealth and distinction any where. The revolution, calling out as it did the whole talent of the nation, would have made him a legislator and a statesman. But it was his taste for general knowledge, and love of scientific

information, turning his mind to observation and experiment upon nature, that made him the discoverer of the laws of heat and of the principle of electricity. This added dignity and influence to his character and opinions in his own time, whilst in the present day, the patriot whom we honour as one of the founders of our independence and our constitution, is revered by every other civilized people as the sage who has given to their dwellings protection against the lightning of heaven, and comfort amidst the blasts of winter.

In the same manner it has happened within our own times, that some of the most splendid works of literary genius, and the most admirable discoveries of scientific investigation, have been produced by the leisure studies of men engaged in commercial business or professional labour. There is scarce a single science among those to be explained to you by the eminent lecturers who are to succeed me, that will not furnish some striking example of this fact. Look, for instance, at chemistry. Sixty years ago it was a compound of wild hypotheses and insulated facts, or unexplained processes. The common consent of the scientific world ascribes its elevation to the rank of a science to Priestley. He was, by profession and preference, throughout life a teacher of religion and of learning, and an unwearied and prolific theological and metaphysical author. He was not—at least in my judgment, for it may be that in this respect I wrong his memory—he was not possessed of any remarkable force as a moral reasoner; nor had he, I think, that

rare power of steady, long-continued, unbroken attention which fixes the whole mind continually upon its chosen subject, until the very foundations of the inquiry are laid bare; but he had, to an uncommon degree, that liberal curiosity, that thirst for information to which no knowledge appears indifferent. To this were united incessant activity of thought and singular sagacity, minuteness and clearness of observation. An accidental circumstance of his life, his residing in the neighbourhood of a great brewery, by casually calling his attention to the peculiar appearances attending the extinction of lighted chips in the gas floating over fermented liquor, directed his curiosity to the examination and analysis of the several gases, and the curious results of his first experiments led to others, which in his hands soon became the science of Pneumatic Chemistry.

To chemistry he devoted his leisure time reserved from the faithful discharge of numerous other duties—and that time only. No man could be more patient, more industrious, or more ingenious in inventing and applying those experiments so happily termed by Bacon “the judicious interrogation of nature.” His interrogations followed each other with restless rapidity, and nature replied by the revelations of mystery after mystery.

Thus did Priestley win for himself the proud title of the father of modern chemistry. This science has since been wonderfully augmented in its power over nature, as well as improved in the philosophical accuracy of its arrangement and nomenclature; but

the brilliant discoveries and labours of subsequent chemists, from Lavoisier to Davy, who have devoted their whole lives to this study, so far from eclipsing the glories of Priestley's leisure, may in fact be considered as being but their development and consequences.

Turning from the material to the moral sciences, we may observe a precisely similar instance in the history of political economy.

It is with the reverence due to an intellect, of which I can never enough admire the penetration, the order, the comprehensiveness, and the strength—with the gratitude due to one whom I view as a public benefactor, and to whom I feel deeply indebted for the discipline and improvement of my own mind, that I pronounce the name of David Ricardo. He was, as many of my hearers know, a London banker, and acquired in that business a most ample fortune. He was also many years a member of the British Parliament, where he was very prominent and efficient on all subjects of finance and currency. Yet amidst the daily pressure of such employments, he was able to concentrate his mind to one favourite investigation, that of the principles of political economy. The French and Italian economists had been fertile in ingenious theories, which, though they had not the merit of truth, had the utility of affording a convenient basis for inquiry. Sir James Stewart had collected many facts, and explained some of them. Galliani, Turgot, and, above all, Adam Smith, had gone further. They had arranged and analyzed, and given to political economy the method and clearness,

but neither the precision nor the certainty of a science. What the statesmen and philosophers of Europe had failed to achieve, whether in the learned ease of universities, or aided by the experience of the *bureau*, was effected by the English banker in hours borrowed from the turmoil of the exchange and the stock-market.

He it was, who, when the governments, the capitalists, and the talent of Great Britain, during the suspension of specie payments, after deceiving themselves, had combined to delude the people on the depreciation of bank paper, dissipated that delusion, by the clear evidence of reason and fact, proved the mischief it was producing, and pointed out the remedy. His other and more elaborate writings, on the fundamental principles of political economy, are full of the most original and the severest reasoning, but always leading to the most practical conclusions. Possessing, in a most eminent degree, the talent of philosophical abstraction and generalization, his sagacity detected, and his rigorous analysis demonstrated the principles which pervade the laws of value and exchange; and he pursued these principles to their ultimate results with a close but bold logic, that, from the apparent contradiction of many of its inferences to particular facts, or the experience of life, sometimes bore to the careless or prejudiced reasoner the air of paradox or palpable error. This mental peculiarity, which might have been expected in a solitary and studious man of philosophical genius like Newton or Locke, was the more singular and striking in a man habitually and

daily conversant with those practical details, the scientific theory of which he investigated and expounded. But when those general laws and principles, thus obscure or startling in their abstract and naked enunciation, are correctly applied to the actual affairs of life, and their mutual combination and limitation with, and of each other are traced out, then their truth, their beauty, and their application become evident, and we see and acknowledge in Ricardo the true union of the sagacious man of business and the profound philosopher. His masterly analysis of the manner in which labour governs the exchangeable value of the products of human industry, his discovery of the ruling principle of the laws regulating the rates of profit and interest, his development of the true doctrine of agricultural rent, and his application of the whole to the theory of the operation of taxes, appear to me to be the most admirable intellectual exploits of the present age. They have formed a new era in the science of enlightened political administration; and unless my admiration of his genius deceive me, Ricardo is destined to be the guide and instructor of future statesmen, and the legislator of all well governed nations.

I have trespassed too long upon your patience, but I cannot refrain from adding to these memorable examples in the two most modern of the science, another of eminence in literature, gained under similar circumstances. It is one that, whilst it illustrates my argument, affords me a most fitting occasion to pay a passing tribute to the memory of a venerable friend,

the late William Roscoe of Liverpool. He has long ago received the richest offerings of American eulogy. The praise which Washington Irving* has bestowed upon him, as a scholar and a gentleman, must be familiar to most of you. With his accustomed graceful and polished eloquence of style, he has painted Roscoe as having almost created his own mind, springing up and forcing its way through a thousand obstacles; as self-prompted, self-sustained, and almost self-educated; conquering every obstacle, and making his own road to fame and fortune, and, after becoming one of the ornaments of the nation, turning the whole force of his talents and influence to advance and embellish his native town. He has pointed out "his private life as peculiarly worthy the attention of the citizens of our young and busy country, where literature and the elegant arts must grow up side by side with the coarse plants of daily necessity, and must depend for their culture, not on the exclusive devotion of time or wealth, but on hours and seasons snatched from the pursuits of worldly interests by intelligent and public-spirited individuals." He has alluded to the dignity with which Roscoe sustained the reverses of fortune in his old age, and the solace he then found in the company of those much-loved associates, whom his muse has hailed as the "teachers of wisdom, chiefs of elder art."

To the justice or the beauty of Irving's eulogy in these regards, I could add nothing; but it was my

* Sketch Book.

own good fortune to have viewed Roscoe under yet another aspect.

The circumstance of my having, as a member of the legislature of this state, been officially engaged upon the improvement of the penitentiary system, which subject had attracted much of Mr. Roscoe's attention, led to the renewal of a slight personal acquaintance that I had formed with him several years before, and to a correspondence that lasted till his death. I can bear testimony to the philanthropic zeal with which he entered into the examination of that and of every question of improvement on this side of the Atlantic—to the warm interest he took in every thing that concerned the cause of civil or religious liberty, of education, or of humanity; to his zeal, his courage, and his unwearied efforts in promoting the success of all of them.

Roscoe's reputation, as a scholar and an author, was principally gained by his familiarity with the beautiful language, the elegant literature, and the fine arts of Italy, and by his excellent historical works, by which he placed those hitherto inaccessible branches of knowledge within the reach of the mere English reader. Now I know of no finer example of the combination of the beautiful with the useful, and of the manner in which the one may be made not only to harmonize with but to aid the other, than that in which Roscoe applied the reputation and influence won, and the literary talent cultivated by studies such as these, to all the best and most practical uses of society, and among them, to the improvement of the coarsest, and,

in the view of a fastidious mind, the most revolting parts of the machinery of social government, to the statistics of vice, the police of prisons, and the prevention and punishment of crime.

His memory has yet other and special claims upon us who are here assembled.

As teaching by his own example and by his writings the value of a union of commerce with intellectual pursuits,—as showing, by his life, how they may be made to harmonize, and to benefit each other, as the founder of the Athenæum of Liverpool, upon which this and similar establishments in America were modelled,—we may justly regard him as one of the fathers of this Institution. Such, I am sure, would have been his own feeling towards it; he would have joyed over the advantages that it now affords to the youth of New York with a truly paternal fondness.

He died during the last summer, at the venerable age of eighty years, retaining, to the very last, his activity of mind, his love of letters, and his zeal for the service of mankind. His death was mourned by the intelligent and the good of Great Britain, as a public loss. It is fitting that we, too, should do him honour. I have therefore thought that this place, and the occasion of opening a course of varied instruction before a commercial audience of New York, demanded this public tribute to the talents and worth of
WILLIAM ROSCOE.

ADDRESS

DELIVERED TO THE SUBSCRIBERS TO

THE WINDSOR AND ETON PUBLIC LIBRARY,

ON THE 29TH JANUARY, 1833,

BY SIR J. F. W. HERSCHEL, BART., M.A., F.R.S.

GENTLEMEN,—I ought, perhaps, to apologize to you for addressing you on this occasion from a written paper. I know that to do so is not altogether in consonance with the habits of our countrymen when assembled on public occasions, and I should certainly not claim such an indulgence on this, if I had no better reason to assign than a mere want of the readiness and fluency of a practised speaker. But I consider this an important occasion; and as I have thought long and with deep interest on, the advantages, of a public and national description, which may be expected from institutions of this nature, as well as the evils to which they may become obnoxious if not conducted on proper principles, and with a view to the general result, I am very desirous that what I have to say should not lose the force I wish it to carry, by coming before you mixed up with my own imperfections as a speaker;—and I should be very

sorry that the real interest of those topics on which I mean to beg your attention, should be frittered away in unmeaning or hyperbolical expressions, which, in the excitement of the moment, I might have the bad taste to think very eloquent, but which would really have no other effect than to distract attention from the plain common sense of the matter.

I will tell you, Gentlemen, in the first place, why I think this occasion so important. We are assembled here in performance of our part of a process which is going on at present more slowly than might be wished, but which is at length fairly entered upon, and must advance with more rapidity as example sanctions and persuasion urges it; and will, I trust, in a very few years, be in active progress in every town, village, and parish in the kingdom—a process on which it is no exaggeration to say, that the future destinies of this empire will very mainly depend—because on it depends, by a natural and indissoluble link, our capacity as a nation for a high degree of civil liberty. The process I mean is the active endeavour, on the part of every one who can lend a hand to it, to improve the standard of moral and intellectual culture in the mass of the people.

I am not going, Gentlemen, to read you a political lecture—far less to meddle with the topic of party politics, which my soul abhors; but I think it must be clear to every one, that in giving, as has been recently done, to the popular part of our constitution, a more extended and intimate contact with the people at large, a step has been taken, which when tried by

the event—whether it shall have proved a step in advance towards a higher and purer form of civil liberty, or in a retrograde sense towards license and its necessary consequence, arbitrary power—will take its character in the alternative from the degree in which that element shall be found to prevail—(*that*, the most important of all political elements)—which I have called the *capacity of a nation for liberty*, and this capacity in all ages and nations I consider to be directly measured by the extent to which moral and intellectual culture are diffused among all ranks and conditions of men.—And why? Because these—which in their ultimate meaning reduce themselves to benevolence and wisdom, acquired, as far as they can be acquired, by a free access to the best sources of instruction,—these, I say, are the only principles of self-government, which *can* replace effectually, by their intimate presence in the bosom of each individual, a lightened coercion of the governing power from without; and the only ones which can afford any rational assurance that a system of legislation founded openly and avowedly on public opinion shall turn out a prudent, or even a safe one. Indeed I might go farther, and assume it as a principle which, were it necessary, could be supported by many instances, ancient and modern—that the capacity for liberty, thus defined and measured, must for ever, and of necessity, as human society is constituted, command sooner or later that degree of freedom which is commensurate with it—that more, attempted to be prematurely forced upon it, is sure to degenerate into

license and call back the chain; while less cannot possibly be permanently withheld by any combination of the governing powers. Regarding, then, as every reasonable man must do, a high and enlarged degree of rational liberty as the first of temporal blessings, it cannot be a matter of small interest to witness the establishment among us of institutions which have either for their avowed object, or for their direct, though perhaps not immediately intended—perhaps not in all cases perceived—tendency, to foster and encourage the only means by which it can be permanently and beneficially secured.

I shall therefore, I hope, be excused, if I take advantage of the honour you have done me by placing me in this chair, to offer a few observations on the more immediate objects which it is desirable we should aim at; so that, in pursuance of individual and local advantages, we may not lose sight of the general end, but rather endeavour to accommodate our future proceedings to the furtherance of that end, even though it should involve the surrender of some slight superfluity on our own parts, some resignation of what may be considered mere literary luxuries, as a sacrifice to public utility.

I may take it for granted, I think, when I look upon the circle around me, that in forming this institution we have all of us a higher end in view than the mere amusement of the passing hour. We are desirous to have at our disposal a fund of instruction, by drawing from which as from a fountain, we may enlarge our knowledge, improve our taste, correct our

judgment, and confirm our principles; and I will not pay my hearers so ill a compliment, or rather I will not lay on them so unmerited a reproach, as not to assume that this is the principal immediate object in view with us all. Now it must be borne in mind, and I cannot impress it too strongly on your attention, that this principal object must always, and especially in the beginning while our funds are limited, be in a certain degree at variance with a subordinate, but still very agreeable, and by no means useless, part of our system—I mean the Periodical department—that of the Journals and Magazines and floating literature of the day. And I say this without any intention of depreciating either the entertainment or excitement of that sort of reading, or any real utility which may justly be ascribed to it—or its special utility to us, in its power of inducing some to give us their support who otherwise might not feel disposed to do so; but simply to caution you, thus early in our existence, against any future tendency to give an undue extension to this department, so as to divert any large part of the bulk of our resources from their higher and far more useful destination, the increase of our library by the annual addition of sterling and standard works, such as form the main body of our literature and science—such as have outlived ephemeral applause and risen above cotemporary neglect—and will continue to represent to all ages the intellectual greatness of the country which produced them.

It is therefore with great satisfaction that I have heard it resolved, this evening, to throw open the

library to a class of subscribers, at a lower rate than that which confers the privilege of access to the newspapers and periodical works. This is entirely as it should be. Such reading is a luxury and an indulgence, and should be paid for accordingly; the other is a necessary, and should be afforded as cheaply and extensively as possible.

I augur every thing from the approbation the proposal has met with, but I should be sorry, I confess, that we should stop short at that point. My own impression is, that we should make a still farther step, and provide a considerable stock of books for a class of subscribers who should subscribe *nothing but the reading of them*—books of which we should supply the perusal gratis to all who choose to apply for them, leaving perhaps some very trifling desposit, to ensure their return. I do not mean, of course, that our most expensive works, or valuable books of reference, should be so lent out, but, on the contrary, that cheap editions, or second-hand copies, should be expressly set apart for that use. The choice of the works to be admitted into this department, too, would call for some discrimination. And this brings me to a part of my subject on which I must beg your earnest attention.

There is a want too much lost sight of in our estimate of the privations of the humbler classes, though it is one of the most incessantly craving of all our wants, and is actually the impelling power which, in the vast majority of cases, urges men into vice and crime. It is the want of amusement. It is in vain to

declaim against it. Equally with any other principle of our nature, it calls for its natural indulgence, and cannot be permanently debarred from it, without souring the temper and spoiling the character. Like the indulgence of all other appetites, it only requires to be kept within due bounds, and turned upon innocent or beneficial objects, to become a spring of happiness; but gratified to a certain moderate extent it must be, in the case of every man, if we desire him to be either a useful, active, or contented member of society. Now, I would ask, what provision do we find for the cheap and innocent and daily amusements of the mass of the labouring population of this country? What sort of resources have they to call up the cheerfulness of their spirits, and chase away the cloud from their brow after the fatigue of a day's hard work, or the stupefying monotony of some sedentary occupation? Why, really very little—I hardly like to assume the appearance of a wish to rip up grievances by saying *how* little. The pleasant field walk and the village green are becoming rarer and rarer every year. Music and dancing, (the more's the pity,) have become so closely associated with ideas of riot and debauchery, among the less cultivated classes, that a taste for them for their own sakes can hardly be said to exist, and, before they can be recommended as innocent or safe amusements, a very great change of ideas must take place. The beer-shop and the public house, it is true, are always open, and always full, but it is not by *those* institutions that the cause of moral and intellectual culture is advanced. The truth is,

that, under the pressure of a continually condensing population, the habits of the city have crept into the village—the demands of agriculture have become sterner and more imperious, and while hardly a foot of ground is left uncultivated and unappropriated, there is positively not space left for many of the cheerful amusements of rural life. Now, since this appears to be unavoidable, and as it is physically impossible that the amusements of a condensed population should continue to be those of a scattered one, it behoves us strongly to consider of some substitutes. But perhaps it may appear to some almost preposterous to enter on the question. Why, the very name of a labourer has something about it with which amusement seems out of character. Labour is work, amusement is play; and though it has passed into a proverb, that one without the other will make a dull boy, we seem to have altogether lost sight of a thing equally obvious—that a community of “dull boys” in this sense, is only another word for a society of ignorant, headlong, and ferocious men.

I hold it, therefore, to be a matter of very great consequence, independent of the kindness of the thing—that those who are at their ease in this world should look about and be at some pains to furnish available means of harmless gratification to the industrious and well-disposed classes, who are worse provided for than themselves in every respect, but who, on that very account, are prepared to prize more highly every accession of true enjoyment, and who really want it more. To do so is to hold out a bonus for the withdrawal

of a man from mischief in his idle hours—it is to break that strong tie which binds many a one to evil associates and brutal habits—the want of something better to amuse him—by actually making his abstinence become its own reward.

Now, of all the amusements which can possibly be imagined for a hard-working man, after his daily toil, or in its intervals, there is nothing like reading an entertaining book, supposing him to have a taste for it, and supposing him to have the book read. It calls for no bodily exertion, of which he has had enough, or too much. It relieves his home of its dulness and sameness, which, in nine cases out of ten, is what drives him out to the alehouse, to his own ruin and his family's. It transports him into a livelier, and gayer, and more diversified and interesting scene, and while he enjoys himself there he may forget the evils of the present moment, fully as much as if he were ever so drunk, with the great advantage of finding himself the next day with his money in his pocket, or at least laid out in real necessities and comforts for himself and his family—and without a headache. Nay, it accompanies him to his next day's work, and if the book he has been reading be any thing above the very idlest and lightest, gives him something to think of besides the mere mechanical drudgery of his every-day occupation—something he can enjoy while absent, and look forward with pleasure to return to.

But supposing him to have been fortunate in the choice of his book, and to have alighted upon one really good and of a good class. What a source of

domestic enjoyment is laid open! What a bond of family union! He may read it aloud; or make his wife read it, or his eldest boy or girl, or pass it round from hand to hand. All have the benefit of it—all contribute to the gratification of the rest, and a feeling of common interest and pleasure is excited. Nothing unites people like companionship in intellectual enjoyment. It does more, it gives them mutual respect, and to each among them self-respect—that corner-stone of all virtue. It furnishes to each the master-key by which he may avail himself of his privilege as an intellectual being, to

“Enter the sacred temple of his breast,
And gaze and wander there a ravished guest;
Wander through all the glories of his mind,
Gaze upon all the treasures he shall find.”

And while thus leading him to look within his own bosom for the ultimate sources of his happiness, warns him at the same time to be cautious lest he defile and desecrate that inward and most glorious of temples.

I recollect an anecdote told me by a late highly respected inhabitant of Windsor as a fact which he could personally testify, having occurred in a village where he resided several years, and where he actually was at the time it took place. The blacksmith of the village had got hold of Richardson's novel of “Pamela, or Virtue Rewarded,” and used to read it aloud in the long summer evenings, seated on his anvil, and never failed to have a large and attentive audience. It is a pretty long-winded book—but their patience was fully a match for the author's prolixity, and they

fairly listened to it all. At length, when the happy turn of fortune arrived, which brings the hero and heroine together, and sets them living long and happily according to the most approved rules—the congregation were so delighted as to raise a great shout, and procuring the church keys, actually set the parish bells ringing. Now let any one say whether it is easy to estimate the amount of good done in this simple case. Not to speak of the number of hours agreeably and innocently spent—not to speak of the good fellowship and harmony promoted—here was a whole rustic population fairly won over to the side of good—charmed—and night after night spell-bound within that magic circle which genius can trace so effectually; and compelled to bow before that image of virtue and purity which (though at a great expense of words) no one knew better how to body forth with a thousand life-like touches than the author of that work.

If I were to pray for a taste which should stand me in stead under every variety of circumstances, and be a source of happiness and cheerfulness to me through life, and a shield against its ills, however things might go amiss, and the world frown upon me, it would be a taste for reading. I speak of it, of course, only as a worldly advantage, and not in the slightest degree as superseding or derogating from the higher office and surer and stronger panoply of religious principles—but as a taste, an instrument and a mode of pleasurable gratification. Give a man this taste, and the means of gratifying it, and you can hardly fail of making a happy man, unless, indeed, you put into his hands a

most perverse selection of books. You place him in contact with the best society in every period of history—with the wisest, the wittiest—with the tenderest, the bravest, and the purest characters that have adorned humanity. You make him a denizen of all nations—a cotemporary of all ages. The world has been created for him. It is hardly possible but the character should take a higher and better tone from the constant habit of associating in thought with a class of thinkers, to say the least of it, above the average of humanity. It is morally impossible but that the manners should take a tinge of good breeding and civilization from having constantly before one's eyes the way in which the best-bred, and the best-informed men have talked and conducted themselves in their intercourse with each other. There is a gentle, but perfectly irresistible coercion in a habit of reading well directed, over the whole tenor of a man's character and conduct, which is not the less effectual because it works insensibly, and because it is really the last thing he dreams of. It cannot, in short, be better summed up than in the words of the Latin poet—

“Emollit mores, nec sinit esse feros.”

It civilizes the conduct of men—and *suffers* them not to remain barbarous.

The reason why I have dwelt so strongly upon the point of amusement is this—that it is really the *only* handle, at least the only innocent one, by which we can gain a fair grasp of the attention of those who have grown up in a want of instruction, and in a

carelessness of their own improvement. Those who cater for the passions, especially the base or malignant ones, find an easy access to the ignorant and idle of every rank and station—but it is not so with sound knowledge or rational instruction. The very act of sitting down to read a book is an effort, it is a kind of venture—at all events, it involves a certain expenditure of time which we think might be otherwise pleasantly employed—and if this be not instantly and in the very act repaid with positive pleasure, we may rest assured it will not be often repeated—and what is worse, every failure tends to originate and confirm a distaste. If, then, we would generate a taste for reading, we must, as our only chance of success, begin by pleasing. And what is more, this must be not only the ostensible, but the real object of the works we offer. The listlessness and want of sympathy with which most of the works written expressly for circulation among the labouring classes, are read by them, if read at all, arises mainly from this—that the story told, or the lively or friendly style assumed, is manifestly and palpably only a cloak for the instruction intended to be conveyed—a sort of gilding of what they cannot well help fancying must be a pill, when they see so much and such obvious pains taken to wrap it up.

But try it on the other tack. Furnish them liberally with books not written expressly for them as a class—but published for their betters, (as the phrase is,) and those the best of their kind. You will soon find that they have the same feelings to be interested

by the varieties of fortune and incident—the same discernment to perceive the shades of character—the same relish for striking contrasts between good and evil in moral conduct, and the same irresistible propensity to take the good side—the same perception of the sublime and beautiful in nature and art, when distinctly placed before them by the touches of a master—and what is most of all to the present purpose, the same desire having once been pleased, to be pleased again. In short, you will find that in the higher and better class of works of fiction and imagination duly circulated, you possess all you require to strike your grappling-iron into their souls, and chain them, willing followers, to the car of advancing civilization.

When I speak of works of imagination and fiction, I would not have it supposed that I would turn loose, among the class of readers to whom I am more especially referring, a whole circulating library of novels. The novel, in its best form, I regard as one of the most powerful engines of civilization ever invented—but not the foolish romances which used to be the terror of our maiden aunts; not the insolent productions which the press has lately teemed with, under the title of fashionable novels—nor the desperate attempts to novelize history, which the herd of Scott's imitators have put forth, which have left no epoch since the creation untenanted by modern antiques, and no character in history unfalsified; but the novel as it has been put forth by Cervantes and Richardson, by Goldsmith, by Edgeworth, and Scott. In the writings of these, and such as these, we have a stock

of works in the highest degree enticing and interesting, and of the utmost purity and morality—full of admirable lessons of conduct, and calculated, in every respect, to create and cherish that invaluable habit of resorting to books for pleasure. Those who have once experienced the enjoyment of such works will not easily learn to abstain from reading, and will not willingly descend to an inferior grade of intellectual privilege—they have become prepared for reading of a higher order—and may be expected to relish the finest strains of poetry, and to draw, with advantage, from the purest wells of history and philosophy. Nor let it be thought ridiculous or overstrained to associate the idea of poetry, history, or philosophy, with the homely garb and penurious fare of the peasant. How many a rough hind, on Highland hills, is as familiar with the “Paradise Lost,” or the works of his great national historians, as with his own sheep hook. Under what circumstances of penury and privation is not a high degree of literary cultivation maintained in Iceland itself—

“In climes beyond the solar road,
Where savage forms o’er ice-built mountains roam;
The muse has broke the twilight gloom
To cheer the shivering native’s dull abode.”

And what is there in the character or circumstances of an Englishman that should place him, as a matter of necessity, and for ever, in a lower level of intellectual culture than his brother Highlander, or the natives of the most inhospitable country inhabited by man? At least, there is always this advantage in aiming at

the highest results—that the failure is never total, and that though the end accomplished may fall far short of that proposed, it cannot but reach far in advance of the point from which we start. There never was any great and permanent good accomplished but by hoping for and aiming at something still greater and better.*

I have taken up a good deal of your time on this subject, and could still enlarge upon it, but I will content myself with one or two observations in the way of caution, in the event of our adopting this or any similar project, of placing a certain portion of our library at the disposal of gratuitous readers. In the first place then, it appears to me quite an indispensable feature of such a plan, that no work, in any department of reading, should be allowed a place in the portion so set apart, which is not of acknowledged and admitted excellence: nothing ephemeral—nothing trashy—nothing, in short, which shall have the slightest tendency to lower the high standard of thought and feeling which should be held up. The educated and cultivated reader may bear a great deal, and throw off

* A taste for reading once created, there can be little difficulty in directing it to its proper objects. On this point I refer with pleasure to some excellent observations in a little work entitled "Hints and Cautions on the Pursuit of General Knowledge; being the substance of Lectures delivered to Mechanics' Institutions at Southampton and Salisbury, by John Bullar." (Longman and Co., London, 1833,) pp. 23 *et seq.* But the first step necessary to be taken is to set seriously about arousing the dormant appetite by applying the stimulant; to awaken the torpid intellectual being from its state of inaction to a sense of its existence and of its wants. The after-task, to gratify them, and while gratifying to enlarge and improve them, will prove easy in comparison.

what is unworthy of the rest. The illiterate and ignorant is placed in danger by any thing short of the very best.

The other caution which I would hold out is, that an extreme scrupulousness should be exercised, with reference to the admission of works on Politics and Legislation, into such a department: indeed, I should strongly advocate their exclusion from it altogether. This is not from any jealousy of the discussion of political subjects by all classes of Englishmen, which, in the present age, would certainly be a very superfluous feeling; but simply for this reason, that the true and useful object of such an institution is not to establish a school of politics, not to propagate opinions (which every one who puts a political book into the hands of another must inevitably do)—but to lay a broad foundation, by generally enlarging the information and cultivating the mental powers, to enable every man, however humble his station, to form his own opinion on this and a great many other subjects of deep import, (since opinions he must and will have,) with a generally better chance of forming a right one than he has at present. We shall be taking on ourselves a deep responsibility, and one for which I may conscientiously for my own part say, I am not prepared, by any step which may tend to interfere, one way or the other, with the free formation of public opinion on such subjects—nor indeed can I conceive a more probable cause of disagreement among ourselves, which is of all things the most to be deprecated, than the discussions which might arise on this point—the

only way to keep clear of which is to exclude such works altogether.

On the other hand, I see not the slightest objection to the admission of a large class of works of this nature into that department of our library destined for the use of pecuniary subscribers—always reserving a strong objection against works of a violent party character. Indeed, I can hardly imagine a more useful addition to it than an assemblage of the best works on political economy, as a science, and a subject of rational inquiry entirely distinct from politics; a subject, it is true, on which much dispute subsists, but on which, among all its complication and difficulty, a dawn of light has begun to appear, and on which it is of the highest importance that every one calling himself an educated man, should possess some knowledge, and some habit of exercising a logical discrimination, were it only to enable him to detect the fallacies which are continually brought forward.

I might now, Gentlemen, proceed to dilate on the advantages generally to the more educated and better informed, of these accessions to their education and information, which is included in the very notion of a large access to a well chosen library; but time is short, and I am sure they are already appreciated. I shall therefore, now, cease to trespass longer on your patience, and finish what I have to say, with the sincerest wishes for the progress of the institution, and its increase in every thing which can add to the gratification of its members, and the general improvement of the neighbourhood in which it has arisen.

ADDRESS

DELIVERED TO THE

MEMBERS OF THE MANCHESTER ATHENÆUM

ON THE 23D OCTOBER, 1844,

BY BENJAMIN DISRAELI, Esq., M.P.

LADIES AND GENTLEMEN,—When I last had the honour of addressing the members of the Manchester Athenæum they were struggling for the existence of their institution. It was a critical moment in their fortunes. They had incurred a considerable debt in its establishment; the number of its members had gradually, and even for some years, considerably decreased; and, in appealing to the sympathies of the community, they were, unfortunately, appealing to those who were themselves but slowly recovering from a period of severe and lengthened suffering. A year has elapsed, and the efforts that you thus made to extricate yourselves from those difficulties may now be fairly examined. That considerable debt has been liquidated; the number of your members has been trebled—I believe quadrupled; and I am happy to say that your fortunes have rallied while that suffering and surrounding community once more meet together

in prosperity and success. I think it not inopportune, at this moment of security and serene fortune, that we should clearly understand the object for which this great struggle has been made. Under circumstances which, if not desperate, filled you with the darkest gloom, you resolved like men to exert your utmost energies; you applied yourselves to those difficulties with manly energy—with manly discretion. Not too confident in yourselves, you appealed, and appealed successfully, to the softer sex, who you thought would sympathize with an institution intended to humanize and refine. *Dux femina facti* might indeed be the motto of your institution, for it was mainly by such influence that you obtained the result which we now celebrate. But if the object which you had at stake was of so great importance, if it justified exertions so remarkable, made too at a moment when energy was doubly valuable, because you were dispirited, it, I think, would not be unwise for us now to inquire what was the object for which we then exerted ourselves, whether it were one which justified that great sacrifice, and, if it were, to ascertain why it was ever imperilled. To-night we are honoured by many, who, like myself, are strangers, except in feeling, to your community. We are honoured too by the presence of deputations from many societies in this county and the North of England, who acknowledge a sympathy and an analogy of pursuit with the Athenæum of Manchester. It will be well then to place before them briefly for their instruction, and perhaps it may not be without profit to remind you,

what that institution is that you have struggled to uphold, but the existence of which was once endangered.

I think it is seven or eight years ago that some of the leading members of your community, remembering perhaps that there was a time when they regretted that for them such advantages did not exist, thought they would establish in this great city some institution that might offer to the youth of Manchester relaxation which might elevate, and a distraction which would save them from a senseless dissipation. They thought that the time had arrived when a duty devolved on those who took a leading part in communities that they should sympathise with the wants of the rising race, and therefore they resolved to establish an institution where those advantages that I have referred to might be supplied. With these views they resolved, in the first instance, that some place should be supplied where the youth of Manchester might become perfectly acquainted with the passing mind, and passions, and feelings, and intelligence of the age. That idea was the foundation of your news-room. They rightly understood that the newspaper was the most effective arm of the press. It may indeed be considered as the infantry of the press. It is not a complete battalia—you require also ordnance and artillery, a brilliant cavalry; above all, you require the staff of the commander-in-chief, that, without absolutely or actively interfering in the fray, surveys all that occurs, and is ready at all times to apply itself to the quarter which requires counsel; but still you may consider the journal as the most efficient arm of the press. With these

views they furnished a chamber in which the members of the Athenæum might perfectly be acquainted, in the perusal of the chief journals of the empire, with all that was passing in the country, all that was agitating and interesting the public mind—which might supply them with that information, and guide them in forming those opinions, which it is the duty of every citizen of a free community to be acquainted with and to entertain. But, conscious that, however qualified the journal is to stimulate curiosity, to assist investigation, to guide opinion, the knowledge of that individual that is limited only by the daily press is in danger of becoming superficial, you thought that the members of this institution should have some means of consulting the more mature opinions, the more accurate researches of the literary mind of this and other countries, and wisely you made the chamber in which they might read the newspaper an ante-room only to the library. You formed a collection which is now not contemptible in numbers, for you may count it by thousands. What, however, is not so great as many of you must desire, which, in passing, I may be permitted to say is no disgrace to it, because it is a deficiency which is shared by every great collection in this country, and I believe in Europe, but which I should be glad and you would be proud to be supplied in Manchester—I mean is that department which may be described as a commercial library. Manchester, that was once merely an assemblage of manufacturers, is now a great mercantile emporium, and at slight expense and with no great difficulty, if

there were sufficient zeal, you might make a collection of all those interesting and isolated tracts on commerce which at various times during the last century have appeared in England, which now with difficulty you can refer to, but which would form in a collection a peculiar and interesting body of commercial literature, and which, by the bye, you cannot find in the national repository of this country. You who had thus furnished the members of this institution with the journal which gave them the information and feelings of the hour, the library where they might correct the hasty opinions which perhaps that passing criticism is apt to engender—you knew there were many not deficient in ability, not deficient in aptness or feeling, to whom the very ceremony of reading is irksome, and who require to be appealed to by another means perhaps at first sight more captivating. Therefore you formed a theatre where lectures were given, where the experiments of philosophy, the investigations of literature, and the productions of art, were rendered agreeable to the audience by the charms of the human voice. You were not content with having raised an institution where the journal, the library, and the lecture-room were always prepared to enlighten or to amuse—you remembered those wise words of Charles V., who said that “the man who knew two languages had two souls and two lives,” and therefore you established classes by which the youth of this city might initiate themselves in a knowledge of the modern languages. Your plan was comprehensive; but it was not limited even by this fourth division. You knew

well that in a free country, in a country that prides itself upon the science and practice of self-government, it is the duty—at least it is the interest—of all men to be able to express themselves in public with perspicuity, and, if possible, with elegance; therefore you established a discussion society, an institution in harmony with the political life and the social manners of England. Having thus amply provided for the formation of the mind of your new and rising community, you still remembered (borrowing a happy idea from those races of antiquity to whom you owe your name) that any education which confined itself to sedentary pursuits was essentially imperfect, that the body as well as the mind should be cultivated—you wisely, and in no common and ordinary spirit, established a gymnasium. These are the principal characteristics of your institution. There are others on which it would be wearisome to dwell; but I have placed before you six principal objects that you had desired to attain. Having taken this large and comprehensive view of the wants of your society, and meeting them with a spirit so liberal and large, you took the best and wisest step. You knew well the effect that architecture produces on the human mind: you determined therefore that your establishment should be embodied in an edifice that should please the imagination and satisfy the taste. You invited the most eminent of modern architects. Under the roof of a noble elevation you supplied the means for pursuing those studies that I have indicated; and this is a simple account of the Manchester Athenæum.

It is difficult to conceive how a nobler purpose, if for a moment we dilate upon it, could have animated your intentions. When we remember the class of your community for which this institution was particularly adapted,—when we conceive, difficult as it is, surrounded as we now are with luxury and pleasure,—when we attempt to picture to our imaginations what is the position of a youth, perhaps of very tender years, sent, as I am informed is very frequently the case, from a distant district, to form his fortunes in this great metropolis of labour and of science,—when we think of that youth, tender in age, with no domestic hearth to soothe and stimulate, to counsel or control,—when we picture him to ourselves after a day of indefatigable toil, left to his lonely evenings and his meagre lodgings without a friend and without a counsellor, flying to dissipation from sheer want of distraction, and perhaps involved in vice before he is conscious of the fatal net that is surrounding him—what a contrast to his position does it offer when we picture him to ourselves with a feeling of self-confidence, which supports and sustains him after his day of toil, entering a great establishment where every thing that can satisfy curiosity, that can form taste, that can elevate the soul of man and lead to noble thoughts and honourable intentions, surrounds him! When we think of the convenience and the comfort, the kindness and the sympathy which, with a due decorum of manners, he is sure to command,—this youth, who but a few hours before was a stranger—viewing an institution like the present only in this

limited aspect, one must regard it as a great harbour of intellectual refuge and social propriety.

If my description of what this institution offers to us, if my view of what it in some degree supplies, be just, what, I must inquire, is the reason that an institution, the prosperity of which now cannot be doubted, but so brief a time ago could have been apparently in the last stage of its fortunes? It is not an agreeable task—I fear it may be considered by some an invidious one—if I, who am a stranger among you, should attempt to play the critic upon your conduct; but I feel confidence in your indulgence. I remember the kindness which has placed me in this honourable position, and therefore I shall venture to express to you the two reasons to which I think the dangerous state of our position must fairly be ascribed. I would say, in the first place, without imputing the slightest fault to the originators of this institution, wishing to be most distinctly understood as not only not imputing any fault to them, but most decidedly being of opinion that the fault does not lie at their door; still I cannot shut my eyes to the fact, that, in the origin of this institution, by circumstances not foreseen, and which certainly were not intended, a party, a limited, and a sectarian feeling, in some degree pervaded its management. I confess, myself, that it appears to me that it would have been a marvel had it been otherwise. When we remember the great changes that had then but very recently occurred in this country—when we recall to our mind not only the great changes that had occurred, but the still

greater that were menaced and discussed—when we remember what an influence is created when local jealousy blends with political passion—it is not difficult to imagine, because there are none of us present but in their sphere must have felt its influence—it is not wonderful that men of different political opinions should look with extreme jealousy upon each other. A combination of peculiar circumstances that created a balanced state of parties in those places where the struggle for dominion and power takes place, very much assisted this feeling; and that such a feeling existed throughout all England in a degree more intense and more virulent than has ever been equalled in the history of this country, I think no man will deny, and all must deplore. For my own part, I really believe that, had that party and sectarian feeling proceeded in the same ratio of virulence it has done for the last twelve or fourteen years, it must have exercised a barbarising influence upon public sentiments and public manners. There are some amongst us now, I know, who believe that the period has arrived when a great effort must be made to emancipate this country from the degrading thralldom of faction—to terminate, if possible, that extreme, that sectarian, and limited view, in which all human conduct is examined, observed, and criticised—to put an end to that exclusiveness, which, in its peculiar sphere, is equally deleterious as that aristocratical exclusiveness of manners which has produced so much evil; and, as far as I can form an opinion, these views have met with sympathy from every part of the country. I

look upon it that to-night—I hope I am not mistaken—we are met to consummate and to celebrate the emancipation of this city, at least as far as the Athenæum extends, from the influence of these feelings. I hope that our minds and our hearts are alike open to the true character of this institution, to the necessities which have created it, to the benefits to which it leads; and happy I shall be, and all, I am sure, who are assisting me this evening, if it prove that our efforts, however humble, may have assisted in so delightful and so desirable a consummation.

Now, that is one of the reasons, and one of the principal reasons, why I believe a blight seemed to have fallen over our fortunes. I think at the same time that there is another cause that has exercised an injurious effect upon the position, until recently, of this institution. I think that a limited view of its real character has been taken even by those who were inclined to view it in a spirit of extreme friendliness. It has been looked upon in the light of a luxury, and not of a necessity—as a means of enjoyment in the hour of prosperity from which we ought to be debarred when the adverse moment has arrived; so that, when trade was prospering, when all was sunshiny, a man might condescend to occupy his spare hours in something else than in a melancholy brooding over the state of the country—that, when returns were rapid and profits ready, one might deign to cultivate one's faculties, and become acquainted with what the mind of Europe was conceiving or executing; but these were delights to be reserved only for those chosen

hours. Now that, I am bound frankly to say, is not the view which I take of this question—not the idea which I have formed of the real character of the Manchester Athenæum. I look upon it as part of that great educational movement which is the noble and ennobling characteristic of the age in which we live. Viewing it in that light, I cannot consent myself that it should be supported by fits and starts. The impulse which has given us that movement in modern times is one that may be traced to an age that may now be considered comparatively remote, though the swell of the waters has but recently approached our own shore. Heretofore society was established necessarily on a very different principle to that which is now its basis. As civilization has gradually progressed, it has equalised the physical qualities of man. Instead of the strong arm it is the strong head that is now the moving principle of society. You have disenthroned Force, and placed on her high seat Intelligence; and the necessary consequence of this great revolution is, that it has become the duty and the delight equally of every citizen to cultivate his faculties. The prince of all philosophy has told you, in an immortal apophthegm, so familiar to you all that it is now written in your halls and chambers, “Knowledge is power.” If that memorable passage had been pursued by the student who first announced this discovery of that great man to society, he would have found an oracle not less striking, and in my mind certainly not less true; for Lord Bacon has not only said that “knowledge is power,” but living one century after the discovery

of the printing-press, he has also announced to the world that "knowledge is pleasure." Why, when the great body of mankind had become familiar with this great discovery—when they learned that a new source was opened to them of influence and enjoyment, is it wonderful that from that hour the heart of nations has palpitated with the desire of becoming acquainted with all that has happened, and with speculating on what may occur? It has indeed produced upon the popular intellect an influence almost as great as—I might say analogous to—the great change which was produced upon the old commercial world by the discovery of the Americas. A new standard of value was introduced, and, after this, to be distinguished, man must be intellectual. Nor, indeed, am I surprised that this feeling has so powerfully influenced our race; for the idea that human happiness is dependant on the cultivation of the mind, and on the discovery of truth, is, next to the conviction of our immortality, the idea the most full of consolation to man; for the cultivation of the mind has no limits, and truth is the only thing that is eternal. Indeed, when you consider what a man is who knows only what is passing under his own eyes, and what the condition of the same man must be who belongs to an institution like the one which has assembled us together to-night, is it—ought it to be—a matter of surprise that, from that moment to the present, you have had a general feeling throughout the civilised world in favour of the diffusion of knowledge? A man who knows nothing but the history

of the passing hour, who knows nothing of the history of the past, but that a certain person whose brain was as vacant as his own occupied the same house as himself, who in a moment of despondency or of gloom has no hope in the morrow because he has read nothing that has taught him that the morrow has any changes—that man, compared with him who has read the most ordinary abridgment of history, or the most common philosophical speculation, is as distinct and different an animal as if he had fallen from some other planet, was influenced by a different organization, working for a different end, and hoping for a different result. It is knowledge that equalizes the social condition of man—that gives to all, however different their political position, passions which are in common, and enjoyments which are universal. Knowledge is like the mystic ladder in the patriarch's dream. Its base rests on the primeval earth—its crest is lost in the shadowy splendour of the empyrean; while the great authors who for traditionary ages have held the chain of science and philosophy, of poesy and erudition, are the angels ascending and descending the sacred scale, and maintaining, as it were, the communication between man and heaven. This feeling is so universal that there is no combination of society in any age in which it has not developed itself. It may, indeed, be partly restrained under despotic governments, under peculiar systems of retarded civilization; but it is a consequence as incidental to the spirit and the genius of the Christian civilization of Europe, as that the day should follow night, and the stars should shine

according to their laws and order. Why, the very name of the institution that brings us together illustrates the fact—I can recall, and I think I see more than one gentleman around me who equally can recall the hours in which we wandered amid

“Fields that cool Ilyssus laves.”

At least, there is my honourable friend the member for Stockport, who, I am sure, has a lively recollection of that classic stream, for I remember one of the most effective allusions he made to it in one of the most admirable speeches I ever listened to. But, notwithstanding that allusion, I would still appeal to the poetry of his constitution, and I know it abounds in that quality: I am sure that he could not have looked without emotion on that immortal scene. I still can remember that olive-crowned plain, that sunset crag, that citadel fane of ineffable beauty! That was a brilliant civilization developed by a gifted race more than 2000 years ago; at a time when the ancestors of the manufacturers of Manchester, who now clothe the world, were themselves covered with skins, and tattooed like the red men of the wilderness. But influences more powerful even than the awful lapse of time separate and distinguish you from that race. They were the children of the sun; you live in a distant, a rugged, and northern clime. They bowed before different altars, they followed different customs, they were modified by different manners. Votaries of the Beautiful, they sought in Art the means of embodying their passionate conceptions; you have devoted your

energies to Utility; and by the means of a power almost unknown to antiquity, by its miraculous agencies, you have applied its creative force to every combination of human circumstances that could produce your objects. Yet, amid the toil and triumphs of your scientific industry, upon you there comes the undefinable, the irresistible yearning for intellectual refinement—you build an edifice consecrated to those beautiful emotions and to those civilizing studies in which they excelled, and you impress upon its front a name taken from—

“Where on Ægean shores a city rose,
Built nobly, clear the air, and light the soil,
Athens, the eye of Greece, mother of arts
And eloquence!”

Beautiful triumph of immortal genius! Sublime incentive to eternal fame! Then, when the feeling is so universal, when it is one which modern civilization is nurturing and developing, who does not feel that it is not only the most benevolent, but the most politic thing you can do to avail yourselves of its influence, and to direct in every way the formation of that character upon which intellect must necessarily now exercise an irresistible influence? We cannot shut our eyes any longer to the immense revolution. Knowledge is no longer a lonely eremite affording a chance and captivating hospitality to some wandering pilgrim; knowledge is now found in the market-place, a citizen and a leader of citizens. The spirit has touched the multitude; it has impregnated the mass—

“———— Totamque infusa per artus,
Mens agitat molem, et magno se corpore miscet.”

I would yet say one word to those for whom this institution is not entirely but principally formed. I would address myself to that youth on whom the hopes of all societies repose and depend. I doubt not that they feel conscious of the position which they occupy—a position which, under all circumstances, at all periods, in every clime and country, is one replete with duty. The Youth of a nation are the trustees of Posterity; but the youth I address have duties peculiar to the position which they occupy. They are the rising generation of a society unprecedented in the history of the world; that is at once powerful and new. In other parts of the kingdom the remains of an ancient civilization are prepared ever to guide, to cultivate, to influence the rising mind; but they are born in a miraculous creation of novel powers, and it is rather a providential instinct that has developed the necessary means of maintaining the order of your new civilization, than the matured foresight of man. This is their inheritance. They will be called on to perform duties—great duties. I, for one, wish, for their sakes and for the sake of my country, that they may be performed greatly. I give to them that counsel which I have ever given to youth, and which I believe to be the wisest and the best,—I tell them to aspire. I believe that the man who does not look up will look down; and that the spirit that does not dare to soar is destined perhaps to grovel. Every individual is entitled to aspire to that position which he believes his faculties qualify him to occupy. I know there are some who look with what I believe is short-sighted

timidity and false prudence upon such views. They are apt to tell us—"Beware of filling the youthful mind with an impetuous tumult of turbulent fancies; teach youth, rather, to be content with his position—do not induce him to fancy that he is that which he is not, or to aspire to that which he cannot achieve." In my mind these are superficial delusions. He who enters the world finds his level. It is the solitary being, the isolated individual, alone in his solitude, who may be apt to miscalculate his powers, and misunderstand his character. But action teaches him the truth, even if it be a stern one. Association affords him the best criticism in the world, and I will venture to say, that if he belong to the Athenæum, though when he enters it he may think himself a genius, if nature has not given him a passionate and creative soul, before a week has elapsed he will become a very sober-minded individual. I wish to damp no youthful ardour. I can conceive what such an institution would have afforded to the suggestive mind of a youthful Arkwright. I can conceive what a nursing-mother such an institution must have been to the brooding genius of your illustrious and venerated Dalton. It is the asylum of the self-formed; it is the counsellor of those who want counsel, but it is not a guide that will mislead, and it is the last place that will fill the mind of man with false ideas and false conceptions. He reads a newspaper, and his conceit oozes out after reading a leading article. He refers to the library, and the calm wisdom of centuries and sages moderates the rash impulse of juvenescence.

He finds new truths in the lecture-room, and he goes home with a conviction that he is not so learned as he imagined. In the discussion of a great question with his equals in station, perhaps he finds he has his superiors in intellect. These are the means by which the mind of man is brought to a healthy state, by which that self-knowledge that always has been lauded by sages may be most securely attained. It is a rule of universal virtue, and from the senate to the counting-house will be found of universal application. Then, to the youth of Manchester, representing now the civic youth of this great county and this great district, I now appeal. Let it never be said again that the fortunes of this institution were in danger. Let them take advantage of this hour of prosperity calmly to examine and deeply to comprehend the character of that institution in which their best interests are involved, and which for them may afford a relaxation which brings no pang and yields information which may bear them to fortune. It is to them I appeal with confidence, because I feel I am pleading their cause—with confidence, because in them I repose my hopes. When nations fall, it is because a degenerate race intervenes between the class that created and the class that is doomed. Let them then remember what has been done for them. The leaders of their community have not been remiss in regard to their interests. Let them remember, that when the inheritance devolves upon them, they are not only to enjoy but to improve. They will one day succeed to the high places of this great community; let them

recollect those who lighted the way for them; and when they have wealth, when they have authority, when they have power, let it not be said that they were deficient in public virtue and public spirit. When the torch is delivered to them, let them also light the path of human progress to educated man.

ADDRESS

DELIVERED TO THE MEMBERS OF

THE MANCHESTER ATHENÆUM,

ON THE 23D OCTOBER, 1844,

BY LORD JOHN MANNERS, M.P.

Lord J. MANNERS, said,—When I first received the flattering invitation to be present at this most brilliant and gratifying assemblage, I will own to you that I hesitated whether to accept it or not, because I was not sure that a stranger from another part of England did right in participating in a work affecting the local interests of this vast hive of manufacturing industry; but then I reflected that Manchester had now, by the enterprise and skill of her children, become intimately and inseparably connected with every portion, however remote, of the English kingdom, and that every Englishman might therefore claim a share in her greatness, sympathize in her endeavours to promote the welfare of her children, and share in her princely hospitality. Nor, indeed, will this be the first time that I have partaken of that hospitality, nor this the first occasion on which I have expressed my grateful sense of it. In appearing,

therefore, among you this evening, although to most of you, I fear, I must be a stranger, I cannot altogether say I feel myself among strangers. The kindness indeed of your reception of me, and those cheers, would before this have dissipated my fears on that score. In these days of political rancour, and class and party distinctions, it is gratifying to any one who remembers that the name of Englishmen should be one of prouder import, and bear a more quickening spell, than that of Whig or Tory—to find a field whereon politicians of all opinions may meet without quarrelling, and, better still, with a good hope that the result of the meeting may be affording increased means of mental amusement and recreation to the laborious salesman and toiling apprentice. I have called it amusement and recreation, because I do not understand that your Athenæum professes to go beyond that, and because I should think less well of it if it did. And here I must beg a boon at your hands,—If in any thing I have said, or am about to say, I may hazard an opinion not altogether in harmony with that of every individual out of the three thousand whom I have now the honour of addressing—an event certainly by no means improbable—I ask you to overlook it, and, as a love of independence has ever been a characteristic of the Saxon, I am sure I shall not ask in vain. The reason, then, why Mechanics' Institutes were so strongly opposed at their formation, and why, in my opinion, so many of them are now either languishing or dead—was, that, deserting and exceeding this their legitimate province, they arrogated, or at least their advocates

arrogated for them, the education of the country, and seemed to fancy it supplied by a smattering of science and human philosophy. It was but the other day I had the pleasure of listening to a speech which would have graced any assembly, delivered by a young Birmingham artisan, in which he described the decadence of all such institutions in his own town to their forgetting amusement in instruction, and acting on the assumption that a man, after working twelve, or fourteen, or perhaps fifteen hours a-day, would or could sit down to recreate his mind with a course of mathematics or a lecture on geology. If then your Athenæum were founded on any such basis, I frankly say I could not support it, but, believing it only proposes to supply the already educated with wholesome and agreeable reading—to mould, soften, and elevate the intellectual tastes of that middle class of which it is chiefly composed, and to foster and encourage rising talent, I rejoice at this opportunity your kindness has afforded me of expressing my sympathy in your objects and my warm approval of your endeavours—endeavours and objects which, taken in conjunction with others, animated by a similar spirit, may go far to supply the place of that more intimate connection which once subsisted between the master and his apprentice, and unite generally the various classes of society in the firm bonds of mutual interest and good will. It would be indeed most presumptuous in me, and most unnecessary, to do more in Manchester than just allude to the fact, that there are other steps to be taken besides this one of providing intellectual recrea-

tion for the middle class. The magnificent example set by Manchester to all other large towns, and with which all England is at this moment ringing—that great undertaking to provide parks and walks for all classes of the community—open alike to the highest and the lowest—shows how well that truth is understood in Manchester; and I trust, before long, it will be followed by another step in the same direction—the opening of museums and collections of that nature to the people at large. Most encouraging indeed is it to witness the eagerness with which the people everywhere avail themselves of every opportunity which is offered them to frequent exhibitions of art, places of innocent amusement—still more gratifying their demeanour while there. The meeting I had the pleasure of attending this morning bore witness to another fact as to the taste of the members of the various literary institutions which I think is remarkable. We were told that history was a favourite study; now, I think it a matter of congratulation that contemporary with this increased demand for history do we find a satisfactory revolution in that department of literature. We see a truth-seeking inquisition at work, which refuses to accept the low and party views of the historians of the last century; the data upon which history is to be formed are carefully sought out, revolved from the obscurity in which they are shrouded, and from them independent conclusions are formed, often at variance with received notions and opinions. The formation and success of societies like the Camden, the Roxburgh, the Archæological, and others which are constantly

bringing those data to light, are proofs of the zeal and earnestness with which the records of the mighty past are being ransacked for the benefit, we may hope, of the future. In a social and political point of view—political, I mean, in its most legitimate and least party sense—I rate highly the good which may accrue to this country from having its past history not a mere record of the kings who reigned and the battles they fought, but the history of its inner life, the habits, thoughts, and tastes of its people, the real aims and objects of its governors laid faithfully before us, because I am every day more and more convinced that half the mischief which is done to a country like this by its legislators and rulers is done from a misunderstanding of its past history; and it is to societies like these and to meetings like these that they, who are thus pioneering the way to a faithful understanding of the past, must look for support and encouragement against the obloquy and opposition which every one who disturbs the slumber of contented lethargy must encounter. In another, perhaps subordinate, but still important branch of contemporary literature—that of taste and the fine arts, no one can entertain a doubt as to the salutary change which has come over the popular mind in that respect. Glance at the literary advertisements, observe the works lying in every bookseller's shop, on every stall at your railway stations, enter the schools of design now happily opened in some of our large towns, listen to the lectures of such men as Professor Dyce or Professor Willis,—in all we see signs not to be misunderstood of an improved, a more

noble, a more English, a more Christian taste. That which M. Rio and others have so appropriately termed Christian art has once more raised its head, and promises fair to emulate, not to surpass, but to emulate its past grandeur and beauty. Be it then the part of the Manchester Athenæum to cultivate and foster that manly literature and that rising art in their endeavour to render this age and this place, already so remarkable for their commercial and manufacturing greatness, equally so for the purity and beauty of their arts and literature. Be it yours to render obsolete the taunt that manufactures must produce a dry, harsh, unpoetical, material spirit; be it yours to practically refute the terrible contrast which has been drawn by the master architect of the day between such a town as Manchester in 1480 and in 1840, by inducing a love for, and an appreciation of, whatever is elevating and ennobling in the fine arts and literature; do this. I know there will still be tasks of greater moment and greater difficulty to accomplish; but do this—you will have done somewhat—a great somewhat; you will have blent together in harmony elements heretofore most contradictory; you will have used them for preparing the ground, it may be for others to bring into rich cultivation; you will have set an example to the people of England, that, however weighty political differences may be, social accord and improvement is still more so; and, depend upon it, your children's children will have reason to bliss those evenings spent, as this evening is being spent, in good fellowship and the interchanges of kind wishes and of thought between

the various classes of this careworn empire, in an attempt—may it be successful!—to soften the harsh tendencies of toil and wealth by the gentle means of literature and art.

ADDRESS

DELIVERED TO THE MEMBERS OF

THE MANCHESTER ATHENÆUM,

ON THE 23d OCTOBER, 1844,

BY THE HON. GEORGE SYDNEY SMYTHE, M.P.

LADIES, Mr. Chairman, and Gentlemen, if Mr. Gibson, at the outset of so eloquent a speech as that which he has just addressed to you, thought it necessary to apologise to you for detaining you some moments from the Terpsichorean fascinations which he stated are awaiting you—if, after such a speech as that which has just delighted you, he has thought it necessary to make an apology, how much more necessary must it be for me, in thus presuming to appear before you, and especially after a notice so commendatory, and therefore so embarrassing, as that of my honourable friend in the chair. Difficult at all times would it be to speak before an audience where there is one who bears the venerated name of Kemble—to speak before an assembly thus attended by distinguished men, thus presided over by genius, and thus graced and adorned by beauty. But I will say frankly—I will avow, that it is less the external

splendour of this brilliant pageant, all brilliant though it be—it is less the external magnificence of this exhibition which unnerves me at this moment, than the idea—the thought—the elemental principle of which it is the expression. It seems to me that you, to use the words of your Chairman, represent a great necessity; that you, the men of Manchester, have arisen to do honour to letters, in a land where too little honour has been done to letters. It seems to me that, with a spirit worthy of a younger and a freer age, you have resolved to offer to the author and the man of letters a reward of a simpler and less sordid character than the mere hire of this newspaper, or the pay of that review; or, with intentions yet more far-sighted and profound, you may have resolved to correct some of these, the anomalies of a country which is governed by its journals, but where the names of its journalists are never mentioned; of a country where, by the most unhappy of inversions, it is the invention which makes the fortune, and it is the inventor who starves; of a country where, if its men of science aspire to the highest honours which you have to bestow—the suffrages of their fellow-citizens—those men of science will poll by units, where mere politicians will poll by hundreds. And it seems to me especially meet, and right, and fitting, that you, the men of Manchester, should redress these evils; because there is an old, an intimate, a natural alliance between literature and commerce. It is in virtue of this alliance, (which has been alluded to in the speeches of the gentlemen who have preceded me

this evening,) that you know what is passing amongst foreigners—that you cannot but regard with sympathy the honours which abroad are paid to literature. Why, the very ambassadors now sent to us from foreign courts are so many reproaches for our neglect of letters. Who is the ambassador from Russia? A man who has risen by his pen. Who is the ambassador from Sweden? An author and an historian—the historian of British India. Who is the ambassador from Prussia? An author and a professor. Who is the ambassador from Belgium? Again, a man who has risen by literature. Who is the ambassador from France? An author and an historian. Who is the ambassador from our fellow-Saxon in America? Again, an author and a professor. But I will venture to predict for the literature that shall result from such a meeting as the present, that shall derive its impulse from such a spirit, that shall be fostered and encouraged by such sympathies as yours, a destiny yet more lasting and auspicious; because it will not, as Mr. Gibson has said this moment, it will not lean upon the reed of patronage; it will not be patronised by monarchs; it will not be fashioned by nobles; it will not be confined to classes. It shall be free, independent, universal, and, above all, tolerant, as your own free, independent, universal, and tolerant commerce. [Applause having broken and interrupted the conclusion of this passage, the honourable gentleman said]—I ventured to ask you to let me finish my sentence, because that will explain the diffidence which I feel at this moment—the awe

which I feel at having penetrated this, which I believe to be the elemental idea of this meeting. It brings me face to face, as it were, with a great thought, which carries me down amongst future generations into the very presence of immortality. But with all this admiration and all this awe, I will confess there mingles something of astonishment. My feelings, (to compare those of a small with a great man,) on receiving your invitation, were something like those which David Hume described on reading the great work of Gibbon. Writing to him, he says—"Forgive me if I tell you that I have read your work with as much surprise as admiration, because it seems to me, that while we in Scotland have done great things for literature, you in England have given yourselves up to absurd and barbarous factions." Gentlemen, this meeting is an earnest and a guarantee that these absurdities shall cease, and that these barbarities shall have an end. But, gentlemen, even in this pleasant hour; even in an hour which we have spent in listening to such eloquence, it is impossible not to give a thought to the many and the illustrious victims who have been sacrificed to these the absurdities, the barbarities, or, what is even worse, the vulgarities of our party warfare. Remember for a moment the fate of our last great man. Remember how he was branded and proscribed as an adventurer, because he was born to no hereditary fortune; and then, when the gentle-judging and the generous; when men with large thoughts and large feelings; when men such as I see around me this evening; when the few gathered

about him to fight his battle against the many, he was again branded and proscribed, because they were a few, as a caballer and an intriguer. Remember how through life his views were thwarted, how his spirit was crushed, how his genius was blighted, how his heart was broken, how he was haunted to his grave. And then you may well understand how, amidst calumny and detraction; how amidst small men's envy and the insults of men yet smaller, he must often have pined for some such neutral ground as this, to which his harassed spirit might have flown away and been at peace. And you, despite such eloquence as you have heard this evening; there are few, with the prospect of this happier hour of toleration, of which this meeting is the guarantee; there are few, now that fifteen years have passed over his grave, who will hesitate to exclaim with me, "Oh, for one hour of George Canning!" But there may be some amongst you, gentlemen, who hear me, who think that I am taking too large a view—that I am anticipating results too grave and too important from the Manchester Athenæum. To those who have heard the speeches addressed to you, I think it needless to combat such a proposition. Such at no time could have been a thoughtful opinion. This is no mere ceremonial commemoration. It is impossible for any one to have studied the history of the last half-century, without perceiving that Manchester has always been foremost in the great work of national advancement. I have said before, you represent a great necessity; I believe there is a great work to do,

and I believe that *you* will do it. It seems to me that you, who have already carried your material triumphs to the remotest corners of the earth, have also remembered that there was still another world to conquer. Nor will your triumphs in this spiritual world be less remarkable, because that same creative power, which in the world of action is called invention, and which aids, and serves, and ministers to man; that same creative power in the world of thought is called genius, and governs and provides for man. But in either sphere, be it of thought or of action, your object is ever the same: it is your high and holy mission to benefit mankind. There is nothing small, there is nothing exclusive, there is nothing partial, there is nothing—to use the words of the Chairman—there is nothing sectarian in the spirit of British commerce. It was out of a temper as catholic, as universal, that the humanities first sprang; it will be out of a temper as catholic that here, in the metropolis of English enterprise, great things will again be done. Even at the risk of fatiguing you, I will venture to illustrate my meaning. There is a city which is, as it were, the capital of literature—at once the capital of free letters and of free commerce. It was at Mayence, in a time of darkness and oppression, that a simple citizen arose, strong in justice, strong in the despair of the many, strong even in the wickedness of the few, who resolved to confront those knightly highwaymen, who exacted a toll upon every article, even those of first necessity, which passed through their dominions. That simple citizen was seconded

by an enlightened sovereign, pledged to just principles of commerce. That simple citizen and that enlightened sovereign prevailed. They became the founders of free commerce—I use the word in no partial or party sense; they became the founders of the Rhenish and the Hanseatic leagues; and the ruins of those knightly fortresses upon the banks of the Rhine, still inform the traveller what is the fate of the unjust. But what followed? Out of the impulse thus given; out of the spirit thus awakened; out of free commerce there sprang free letters. It was in that same Mayence that Gutenberg invented printing; it was then the destruction of monopolies in trade that proved the destruction of monopolies in knowledge: the emancipation of the one proved the emancipation of the other. Here, then, in a country as free, and with a sovereign, let us hope, no less anxious to give active relief to the misery of her poorer subjects than was Rodolph of Hapsburgh; here, with merchant-princes around me, animated with a munificence as large as Walpoldens, there shall be to Manchester a renown as great as that of Mayence. I speak not of your local munificence; but I see your vessels and your argosies daily laden, not with bales of cottons, and silks, and cloths, but with goods which have neither a declared nor an official value; they bear from this free island truths which tend to elevate the character of man; they carry principles which tend to unite all men in one fair confraternity of reciprocal assistance. And when out of a spirit so catholic, a power so universal, the old world shall again have received one of

those moral shocks which, like printing or like steam, throw it one stage forward on its career; when civilization shall be one hour nearer its meridian, you will remember that this meeting too had some share in the work of progress. Because here, even at this very hour, we are proclaiming the banns of a marriage which represents the primeval alliance between the spirit and the matter; for this, too, is an alliance between the spirit and the matter. It is a marriage between an industry which has conquered the world, and overspread it "as the waters cover the sea," and an intellect which is young, which is of the people, and which, by God's help, shall continue pure.

ADDRESS

DELIVERED TO THE MEMBERS OF

THE MANCHESTER ATHENÆUM,

ON THE 23D OCTOBER, 1845,

BY SIR THOMAS NOON TALFOURD, D.C.L.,

ONE OF THE JUSTICES OF THE COURT OF COMMON PLEAS.

LADIES and Gentlemen,—If there were not virtue in the objects, and power in the affections, which have called into life the splendid scene before me, capable of emboldening the apprehensive and strengthening the feeble, I should shrink at this moment from attempting to discharge the duties of the high office to which the kindness of your directors has raised me. When I remember that the first of this series of brilliant anniversaries was illustrated by the presidency of my friend, Mr. Charles Dickens, who brought to your cause not only the most earnest sympathy with the healthful enjoyments and steady advancement of his species, but the splendour of a fame as early matured and as deeply impressed on the hearts of his countrymen, as that of any writer since the greatest of her intellectual eras; when I recollect that his place was filled last year by one whose genius,

singularly diversified and vivid, has glanced with arrowy light over various departments of literature and conditions of life, and who was associated with kindred spirits, eager to lavish the ardours of generous youth on the noble labour of renewing old ties of brotherhood and attachment among all classes and degrees of the human family,—I feel that scarcely less than the inspiration that breathes upon us here, through every avenue of good you have opened, could justify the hope that the deficiencies of the chairman of this night may be forgotten in the interest and majesty of his themes. Impressive as such an assembly as this would be in any place, and under any circumstances, it becomes solemn, almost awful, when the true significancy of its splendour is unveiled to the mind. If we consider that this festival of intellect is holden in the capital of a district containing, within narrow confines, a population of scarcely less than two millions of immortal beings, engrossed in a proportion far beyond that of any other in the world, in the toils of manufacture and commerce; that it indicates at once an unprecedented desire on the part of the elder and wealthier labourers in this region of industry, to share with those whom they employ and protect, the blessings which equally sweeten the lot of all, and the resolution of the young to win and to diffuse them; that it exhibits literature, once the privilege only of a cloistered few, supplying the finest links of social union, to be expanded by those numerous members of the middle class whom they are now embracing, and who yet comprise “two-thirds of all the virtue

that remains," throughout that greater mass which they are elevating, and of whose welfare they, in turn, will be the guardians,—we feel that this assembly represents objects which, though intensely local, are yet of universal concern, and cease to wonder at that familiar interest with which strangers at once regard them.

Personally, till a few days ago, a stranger to almost every member of your institution, or rather cluster of institutions, I find now to-day, in the little histories of your aims and achievements, which your reports present, an affinity, sudden indeed but lasting, with some of the happiest passages in a thousand earnest and laborious lives. I seem to take my place in your lecture room, an eager and docile listener among, young men whom daily duties preclude from a laborious course of studies, to be refreshed, invigorated, enlightened—sometimes nobly elevated, sometimes as nobly humbled—by the living lessons of philosophic wisdom—whether penetrating the earth or elucidating the heavens, or developing the more august wonders of the world which lies within our own natures, or informing the Present with the spirit of the Past;—happy to listen to such lessons from some gifted stranger or well-known and esteemed professor, scattering the germs of knowledge and taste, to find root in opening minds;—but, better still, if the effort should be made by one of yourselves,—by a fellow-townsmen and fellow-student, emboldened by the assurance of welcome to try some short excursion of modest fancy, or to illustrate some cherished theory by genial examples, and privileged to taste, in the

heartiest applause of those who know him best and esteem him most, that which is the choicest ingredient in the pleasure of the widest fame. I mingle with your Essay and Discussion Class, share in the tumultuous but hopeful throbbings of some young debater, grow serene as his just self-reliance masters his fears, triumph in his crowning success, and understand, in his timid acceptance of your unenvying congratulations, at the close of his address, that most exquisite pleasure which attends the first assurance of ability to render palpable in language the products of lonely self-culture, and the consciousness that, as ideas which seemed obscure and doubtful while they lurked in the recesses of the mind, are, by the genial inspiration of the hour, shaped into form and kindled into life, they are attested by the understandings and welcomed by the affections of numbers. I seek your Library,—yet indeed but in its infancy, but from whence information and refined enjoyment speed on quicker and more multitudinous wings than from some of the stateliest repositories of accumulated and cloistered learning, to vindicate that right which the youngest apprenticed lad possesses, not merely to claim, but to select for his own, a portion in that inheritance which the mighty dead have left to mankind, secured by the power of the press against the decays of time and the shocks of fortune, or to exult in a communion with the spirit of that mighty literature, which yet breathes on us fresh from the genius of the living; to feel that we live in a great and original age of literature, proud in the consciousness that its spirit is not only to be felt as

animating works elaborately constructed to endure, but as, with a noble prodigality, diffusing lofty sentiments, sparkling wit, exquisite grace, and suggestions even for serene contemplation through the most rapid effusions, weekly, monthly, daily given to the world; and, far beyond the literature of every previous age of the world, aiding the spirit of humanity to appreciate the sufferings, the virtues, and the claims of the poor. And if I must confess, even when refreshed by the invigorating influences of this hour, that I can scarcely fancy myself virtuous enough to join one of your classes for the acquisition of science or language, or young enough to share in the exercises of your gymnasium, where good spirits and kind affections attend on the development of physical energy, there are yet some of your gay and graceful intermixtures of amusement with study to which I would gladly claim admission. I would welcome that delightful alternation of gentle excitement and thoughtful repose by which your musical entertainments tend to the harmony and proportion of life. I should rejoice to share in some of those Irish Evenings, by which our friend Mr. Lover has pictured, in its happiest aspects, that land which is daily acquiring that affection and justice which it so strongly claims. I would appreciate with the heart, if not with the ear, the illustrations of Burns, by which a Scottish melodist has made you familiar with that poet, and enabled you to forget labour and care, and walk with the inspired rustic "in glory and in joy" among his native hills. And with peculiar gratitude to your

directors for enabling you to snatch from death and time, some vestiges of departing grandeur in a genial art which the soonest yields to their ravages, I would hail with you the mightiest and the loveliest dramas of the world's poet, made palpable without the blenchments of decoration or scenery by the voice of the surviving artist of the Kemble name, in whose accents, softened, not subdued, by time, the elder of us may refresh great memories of classic grace, heroic daring, and sceptred grief, he shared with his brother and his sister; and those of us who cannot vaunt this privilege of age, may guess the greatness of the powers which thrilled their fathers in those efforts to which your cause—the cause of the youth of Manchester—breathing into the golden evening of life a second spring, redolent with hope and joy, have lent a more than youthful inspiration. And while I am indulging in a participation of your pleasures, let me take leave to congratulate you on that gracious boon, which I am informed (and I rejoice to hear it, as one of the best of all prizes and all omens in a young career) your virtues have won for a large number of your fellow-workers that precious Saturday's half-holiday, precious almost to man as to boy—when manhood having borrowed the endearing name from childhood seeks to enrich it with all that remains to it of childhood's delights,—precious as a proof of the respect and sympathy of the employers for those whose industry they direct,—and most precious of all will be its results, if, being brightened and graced by such images as your association invokes, it shall leave

body and mind more fit for the work and service of earth and of heaven.

Thus regarding myself as a partaker at least in thought and in spirit, of the various benefits of your association, I would venture to regard them less as the appliances by which a few may change their station in our external life, than as the means of adorning and ennobling that sphere of action in which the many must continue to move; which, without often enkindling an ambition to emulate the immortal productions of genius, may enable you the more keenly to enjoy, and the more gratefully to revere them; which, if they do not teach you the art of more rapidly accumulating worldly riches; and if they shall not—because they cannot—endow you with more munificent dispositions to dispense them than those which have made the generosity of Manchester proverbial throughout the Christian world, may insure its happiest and safest direction in time to come, by habituating those who may dispense it hereafter, to associate in youth, with the affection of brotherhood, for objects which suggest and breathe of nothing but what is wise, and good, and kind. It may be, indeed, that some master mind, one of those by which Providence, in all conditions of our species, has vindicated the divinity which stirs within it, beyond the power of barbarism to stifle, or education to improve, or patronage to enslave, may start from your ranks into fame, under auspices peculiarly favourable for the safe direction of its strength; and, if such rare felicity should await you, with how generous a pride will you

expatiate on the greatness which you had watched in its dawning, and with how pure a satisfaction will your sometime-comrade, your then illustrious townsman, satiated with the applause of strangers, revert to those scenes where his genius found its earliest expression, and earned its most delightful praise. If another "marvellous boy," gifted like him of Bristol, should now arise in Manchester, his "sleepless soul" would not "perish in its pride;" his energies, neither scoffed at nor neglected, would not harden through sullenness into despair; but his genius, fostered by timely kindness, and aided by judicious council, would spring, in fitting season, from amidst the protecting cares of admiring friends, to its proper quarry, mindful, when soaring loftiest, of the associations and scenes among which it was cherished, "true to the kindred points of heaven and home."

But it is not in the cultivation and encouragement of such rare intellectual prodigies, still less in the formation of a race of imitators of excellence, that I anticipate the best fruits of your exertions. A season has arrived in the history of mankind, when talents, which in darker ages might justify the desire to quit the obscure and honourable labours of common life in quest of glittering distinction, can only be employed with safety in adorning the sphere to which they are native; when of a multitude of competitors for public favour, few only can arrest attention; and when even of those who attain a flattering and merited popularity, the larger number must be content to regard the richest hues of their fancy and thought,

but as streaks in the dawn of that "jocund day" which now "stands tiptoe on the misty mountain's top," and in the full light of which they will speedily be blended. But if it is almost "too late to be ambitious," except on some rare occasions, of the immortality which earth can bestow, yet for that true immortality of which fame's longest duration is but the most vivid symbol,—for that immortality which dawns now in the childhood of every man as freshly as in the morning of the world, and which breaks with as solemn a foreshadowing in a soul of the most ordinary faculties, as in that of the mightiest poet; for that immortality, the cultivation of wisdom and beauty is as momentous now as ever, although no eyes, but those which are unseen, may take note how they flourish. In the presence of that immortality, how vain appears all undue restlessness for a little or a great change in our outward earthly condition! How worse than idle are all assumptions of superior dignity in one mode of honourable toil to another,—how worthless all differences of station, except so far as station may enable men to vindicate some everlasting principle, to exemplify some arduous duty, to grapple with some giant oppression, or to achieve the blessings of those "who are ready to perish!" How trivial, even as the pebbles and shells upon "this end and shoal of time," seem all those immunities which can only be spared by fortune to be swept away by death, compared with those images and thoughts, which, being reflected from the eternal, not only through the clear medium of Holy Writ, but, though more dimly,

through all that is affecting in history, exquisite in act, suggestive in eloquence, profound in science, and divine in poetry, shall not only outlast the changes of this mortal life, but shall defy the chillness of the grave! Believe me, there is no path more open to the influences of heaven than the common path of daily duty; on that path the lights from the various departments of your Athenæum will fall with the steadiest lustre; that path, so illumined, will be trodden in peace and joy if not in glory; happy if it afford the opportunity, as it may to some of you, of clearly elucidating some great truth, which being reflected from the polished mirrors of thousands of associated minds, will enrich the being of all.

There is one advantage which I may justly boast over both my predecessors in this office, that of being privileged to announce to you a state of prosperity more advanced and more confirmed than that which either could develope. The fairest prophecies which Mr. Dickens put forth, in the inspiration of the time, in the year 1843, have been amply fulfilled. The eloquent exhortations of Mr. Disraeli, in 1844, have been met by noble responses. From a state of depression, which four or five years ago had reduced the number of members to 400, and steeped the institution in difficulty, it is now so elevated, that you number 133 life members—men who have made the best of all investments, and now may count their gain; you have of paying members no fewer than 2,500—with an income of £4,000 a-year—with a debt annihilated, excepting on a mortgage, and with good hope

of sweeping even that incumbrance away, and of informing the Courts of Bankruptcy, which I understand have taken shelter beneath your roof, that it will soon be time for them to look out for a more appropriate home. Before I entered this room, I was inclined to wonder how these great effects had been achieved; I knew they had been principally accomplished by the great exertions, the sacrifices scarcely less than heroic, of some few members of your society, who had taken its interest deeply to heart; but now, when I survey the scene before me, graced and adorned as it is, I certainly need be surprised at no energies which have been put forth,—I can wonder at no results that have been attained. These exertions, however, permit me to remind you, having been of extraordinary character, you can scarcely hope to see renewed. You must look for the welfare of this institution to its younger members. To them I speak when I say, “To you its destinies are confided; on you, if not its existence, yet its progress and its glory depend; for its happiest success will not arise mainly from emancipated revenues, or the admiring sympathy of strangers, or even from a scheme remarkably liberal and comprehensive, adapted to all; and embracing the feelings of all; nor from laws admirably framed, to preserve and support its proportion and order; but from the vigorous efforts of yourselves—perpetually renewing life in its forms—without which their very perfection will be dangerous, because, while presenting the fairest shows, they may with less violence of apparent and startling transition, cease to be realities, and, instead of a great arena of

intellectual exertion, may become only the abode of intellectual enjoyment and luxury—fair, admirable, graceful still; but the moving, and elevating impulse of a vast population no more! I know I wrong you in deprecating such a result as possible—a result I only imagine, to remind you that, as all momentous changes of the world have been produced by individual greatness, so all popular and free institutions can only be rendered and kept vital by individual energies—a result which nothing can even threaten but that most insidious form of indolence which is called the modesty of self-distrust,—a result against which not only the welfare of this great town, and of each stranger youth who comes to Manchester, and who may hope to find beneath the shelter of your roof a great intellectual home, but also the exigencies of the time in which we live, plead with solemn voices! They remind you that existence has become a different thing since it began with some of us. It then justified its old similitude of a journey,—it quickened with intellect into a march,—it is now whirling with science and speculation into a flight. Space is shrivelled up like a scroll,—time disdains its old relations to distance,—the intervals between the “flighty purpose” and the deed through which thought might lazily spread out its attenuated films, are almost annihilated, and the national mind must either glow with generous excitement, or waste in fitful and enfeebling fever. How important then is it, that throughout our land, but more especially here where all the greatest of the material instruments have their triumphant home

—almost that of the alchemist—the spiritual agencies should be quickened into kindred activity; that the brief minutes of leisure and repose which may be left us should, by the succession of those “thoughts which wander through eternity,” become hours of that true time which is dialled in heaven; that to a mind winged for distant scenes, conversant with the society of the great in all ages, and warmed by sympathy to embrace the vast interests of its species, the few hours in which the space between London and Manchester is now traversed—nay the little hour in which it may soon be flashed over—shall have an intellectual duration equal to the old legitimate six days’ journey of our fathers; while thought, no longer feebly circling in vapid dream, but impelled right onward with divine energy, shall not only outspeed the realised miracles of steam, but the electric visions of prophecy, and still keep “the start of the majestic world.” Mr. Canning once boasted of his South American policy, that he had “called a new world into existence to redress the balance of the old;” be it your nobler endeavour to preserve the balance even between the world within us and the world without us,—not vainly seeking to retard the life of action, but to make it steady by contemplation’s immortal freightage.

In your course, members of the Manchester Athenæum, society at large may mark, and I believe will mark, the clear indications of its progress and its safety. While the solitary leisure of the clerk, of the shopman, of the apprentice, of the overseer, of every worker in all departments of labour, from the highest

to the lowest, shall be gladdened, at will, by those companions to whom the "serene creators of immortal things," in verse and prose, have given him perpetual introduction, and who will never weary, or betray, or forsake him;—while the voluntary toils of associated study shall nourish among you friendships, not like the slight alliances of idle pleasure, to vanish with the hour they gladdened, but to endure through life with the products of the industry which fed them;—while in those high casuistries which your most ambitious discussions shall engender, the ardent reasoner shall recognise the beatings of the soul against the bars of its clay tenement, and gather even from the mortal impediments that confound and baffle it, assurance that it is winged to soar in an ampler and diviner atmosphere than invests his earthly heritage;—while the mind and heart of Manchester, turning the very alloy and dross of its condition to noble uses, even as its mechanists transmute the coarsest substances to flame and speed, shall expand beyond the busy confines of its manufactures and commerce to listen to the harmonies of the universe;—while, vindicating the power of the soul to be its own place, it shall draw within the narrow and dingy walls to which duty may confine the body, scenes touched with colours more fair and lovely than "ever were by sea or land," or trace in each sullen mass of dense and hovering vapour,

"A forked mountain, a blue promontory,
With trees upon 't that nod into the world,
And mock our eyes with air;"

while it shall give the last and noblest proof of the superiority of spirit over matter, by commanding, by its own naked force, as by an enchanter's wand, the presence of those shapes of beauty and power which have hitherto nurtured the imagination in the solitude and stillness of their realities;—while the glory of such institutions as yours shall illumine the fiercest rapids of commercial life with those consecrating gleams which shall disclose in every small mirror of smooth water which its tumultuous eddies may circle, a steady reflection of some fair and peaceful image of earthly loveliness, or some glory of cloud or sky, preserving amidst the most passionate impulses of earth traces of the serenity of heaven;—then may we exult as the chariot of humanity flies onward with safety in its speed,—for we shall discover, like Ezekiel of old in prophetic vision, the spirit in its wheels!

There is yet one other aspect in which I would contemplate your association before I enter on the more delightful part of my duty—that in which success is certain—the soliciting for you the addresses of distinguished men, some of them attached to your welfare as well by local as by general sympathy; others gladly attending on your invitation, who feel your cause to be their cause, the cause of their generation and of the future. It is that in which its influences will be perceived, not merely banishing from this one night's eminence, raised above the level of common life, and devoted by knowledge to kindness, all sense of political differences, but softening, gracing, and ennobling the spirit of party itself, so

long as it must continue active. For although party's worn-out moulds have been shivered, and names which have flashed and thundered as the watchwords of unnumbered struggles for power, are now fast waning into history, it is too much to hope, perhaps to desire, until the education of mankind shall more nearly approach its completion, that strong differences of opinion and feeling should cease to agitate the scenes on which freemen are called to discharge political duties. But the mind of the staunchest partisan, expanded by the knowledge and embellished by the graces which your Athenæum nurtures, will find its own chosen range of political associations dignified—the weapons of its warfare not blunted, but ornamented and embossed—and, instead of cherishing an ignorant attachment to a symbol, a name, or a ribbon, expressed in vulgar rage, infuriated by intemperance to madness, blindly violating the charities of life, and disturbing its holiest domestic affections,—it shall grow calm in the assertion of principle, disdain the suggestions of expediency, even as those of corruption, and partake of the refinement which distance lends, while “with large discourse looking before and after,” it expands its prospect to the dim horizon of human hopes, and seeks its incentives and examples in the tragic pictures of history. A politician thus instructed, who adopts the course which most inclines to the conservation of establishments, will not support the objects of his devotion with a mere obstinate adherence, chiefly because they oppose barriers to the aims of his opponents, but

will learn to revere in them the grandeur of their antiquity, the human affections they have sheltered and nurtured, the experiences which cluster round them, and the spirit which has rendered them vital; while he who pants for important political changes, will no longer anticipate in the removal of those things which he honestly regards as obstacles to the advancement of his species, a mere dead level, or a vast expanse redeemed only from vacancy by the cold diagrams of theory, but will hail the dawning years as thronged by visions of peaceful happiness; and, as great sentiments, like great passions, however opposite may be their superficial aspects, have their secret affinities, so may these champions and representatives of conflicting parties, at the very height of the excitation produced by the energy of their struggle, break on a sense of kindred, if not of their creeds, at least of their memories and their hopes—embrace the Past and the Future in one glorious instant—conscious at once of those ancient anticipations with which the youth of the Past was inspired, when the point we have attained was faintly discerned at the verge of its horizon by the intensest vision of its philosophy, and grasping the genial idea of the Future as richest in the ever accumulating Past, which Time prepares for its treasury. Then shall they join in hailing—as now we hail from this neutral eminence—the gradual awakening of individual man of every class, colour, and clime, to a full consciousness of the loftiness of his origin, the majesty of his duties, the glories of his destiny. Then shall they rejoice with us in the

assurance, that as he conquers the yet desolate regions of the earth, which was given him to be replenished and subdued, the same magic by which you are here enabled to let in on the densest population the air and feeling of mountain solitude, will, in turn, breathe through the opening wilderness the genial refinements of old society; that, as the forest yields to his stout heart and sturdy arm, the dominion of imagination and fancy will extend before him—their powers investing the glades he opens with poetic visions, shedding the purple light of love through thickets and groves till then unthreaded, and touching the extremest hills, when first disclosed to the human eye, with the old familiar hues of christian hope and joy. Then, in the remotest conquests of civilization, shall new Athenæums arise, framed on your model—vocal with your language—inspired with your hopes—to echo back the congratulations which shall be wafted to them even from this place, on each succeeding anniversary, if not by yourselves, by your children and your children's children, and yet more remote descendants, and to bless the names of those who, amidst the toils, the cares, and the excitements of a season of transition and struggle, rescued the golden hours of the youth around them from debasing pleasures and more debasing sloth, and enabled them to set to the world, in a great crisis of its moral condition, this glorious example of intellectual courage and progress.

ADDRESS

DELIVERED AT THE OPENING OF THE NEW HALL OF

THE NEW YORK INSTITUTE OF POPULAR SCIENCE AND LITERATURE,

ON THE 31st MARCH, 1846,

BY JOHN PHILLIPS, ESQ., F.R.S.

PROFESSOR PHILLIPS, said—Both as a member of the York Institute of Popular Science and Literature, and as a citizen of York, I rise on this occasion with very great pleasure, to perform the duty which has been consigned to my hands. As a citizen of York, I am delighted to find that, on the present and on many late occasions, the chief magistrate of this city has testified his high and serious interest in objects so important to the welfare of the inhabitants. It is a matter of very high gratification to me to know, that this is not a momentary or passing feeling, but one which has, for a long time, manifested itself in the councils of the Corporation. As a member of the Institute, it is to me a matter of satisfaction that, on this occasion, we are enabled to receive the Lord Mayor of York in a room in which we are not ashamed to receive him. We have

now been in operation, as an institution, for a period of eighteen years. During all that time, this point of space has been our local habitation; but during all that period we have had the conviction, that time would give us the power to raise a nobler temple for the cultivation of knowledge, in which a larger portion of the population of York may avail themselves of the advantages which systematic instruction is so eminently calculated to confer. That time has come—thanks to the architects who have so well arranged the plan—and we are now provided with spacious rooms, admirably adapted for carrying out the various objects of the Institution. Thanks, also, to the sympathy of those connected, in a most important degree, with the interests of York—our representatives in the national legislature, and other individuals highly placed in society, and high in the good opinion of their fellow-citizens—the members of the Institute are, on this occasion, surrounded by many new and powerful friends, some of whom now, perhaps, for the first time, become acquainted with the real scope and objects of this friendly combination.

Thanks, likewise, to Providence, that we are still surrounded by our earliest friends. Our first President is still the President of the Institution—a man singularly gifted for the various ingenuity of his mind,—Sir George Cayley. We are still favoured with the assistance of our esteemed friend, Mr. Wellbeloved, who delivered to our body the first address it ever heard; and who continues in

“A green old age, unconscious of decay,”

ever active and vigorous in our service. I hope the members will manifest, in this new building, their attachment to the old principle and the old feeling. That old feeling is the love of knowledge, and the desire to communicate it through all ranks of the community, and especially to those to whom it is most valuable, but who are least able to provide means of instruction for themselves. That old principle is, in the course of performing that work, to offend no class of persons, and to shock no class of reasonable opinion. In that course, up to this hour, I believe, we have steadily persevered; and I hope we shall never depart from it. In vain shall we have built this hall, unless we adhere to the principles which have enabled us to erect it; in vain shall we have consecrated this temple of science to the rational gratification of our fellow-citizens, unless we maintain the high ground on which the Institution was based—the love of good and useful knowledge, and the careful and well-considered mode of communicating it.

They who have built this hall, are, I may say, the working population of York; they are the persons who honour labour, who wish that labour should be well-directed, and who look on the exertion of the head or the hand not as a thing to be ashamed of, but as a thing to be proud of, in this industrious land. The wealth of a country consists in the good employment of its people; and the members of the Institute have learned so much as this, that there can be no good employment of an ignorant and uninstructed population.

Yet, for all this, let no man rest the support which

he gives to this Institution upon any notion of the advantages that he is peculiarly to derive from it. Let us build upon a nobler basis than this; for in vain have we founded this Institute, if, now that it is established, we trust for its support to any other than the broad and true principle, that "for the soul of man to be ignorant it is not good." Not because institutions such as this may be made to augment our individual influence in society—not because by the instruction which is here obtained, will its possessor be raised in wealth—not because, in popular language, "Knowledge is power," but, because with enlargement of knowledge comes improvement of individual character, and exaltation of social and national happiness. For this reason, let us adhere to the principle, that "Knowledge is good," because it is a source of blessing to mankind, and therefore deserves the cultivation of every reasonable man. "Knowledge is power,"—Yes! Power!—power to do what? Power to employ the senses and faculties which God has given us in examining the works which he has made; and thus to acknowledge in all creation, "These are thy glorious works." Power to penetrate the mysteries of nature, to learn the laws of matter and motion, and, from all that we can gather from the contemplation of nature, to draw one encouraging conclusion—that nothing happens in the universe which is not carefully planned and strictly attended to. Power to discover the forces which it has pleased the Almighty to put in action among particles of matter, and to turn these forces to

the advantage of mankind; bounded no longer by the sea, limited no longer to human strength, served by more than Titanic agents, whereby man may even fly across that gulph which, for thousands of years, separated the two divisions of the world. Power to guide, to govern, and to bless mankind; and, most important of all, power to know and to control ourselves; power to take right views of our allotted place and destiny in and beyond this world; to rise beyond the influence of daily necessity and immediate gratification, into the contemplations suited to immortal spirits, rays of a diviner essence. For these reasons we will honour knowledge as a Power.

Knowledge should be honoured because it is the instrument to which Providence has committed the exaltation of man; because it is the spell whereby he is enabled to turn all the agencies of nature to his use and advantage; because it gives him the earth for a possession, smoothes the sea for his pleasure, and brings the starry universe within reach of his meditation; and because it binds the earth, with better than the Olympian chain of gold, with a strong and iron circle of commercial relationship, into one vast brotherhood of society and friendly harmony. Knowledge should be cultivated, because knowledge is as necessary to the mind and soul of man as food and air are to the body; because it *must be had* if man is to exist on the earth, and to go on in a course of amelioration, claiming more and more the blessing of Almighty Goodness; and because it *must be had*—if man is to be human—and had in abundance, well

digested, and turned to good account, if man is to realize, here and hereafter, the glorious destiny to which faith and reason point. For what would man be, regardless of the history of his own race—unacquainted with his true place in the economy of creation—and ignorant of the true dependence of man and nature upon the Creator of his being. Such an one is not human; for he neither can be obedient to the will of Providence, nor capable of enjoyment amidst the beauties of nature, nor master of his own mind and purposes. He lives, and so does a plant; he enjoys, and so does an animal. But this is not the life, nor are these the enjoyments which can satisfy and are suited to the soul of man, gifted as it is with exalted powers, and stimulated as it is by a restless curiosity to employ them. The proof of this is, that men are *not* satisfied without the acquisition of knowledge. Such is the constitution of man, that his mental faculties *must* be occupied; and it is, therefore, of the greatest importance that they should be well cultivated and rightly directed. Even under the most unfavourable circumstances, the native intellectual force of the human mind is continually breaking forth, and vindicating its right to cultivation. Providence has so arranged our faculties, and so adjusted them to the external world, that we are impelled, by an invincible curiosity, to observe and to reflect, and especially to delight in the wonders of nature. Fortunately, the religious institutions of our country minister instruction on these points to all people, teaching them to

“ See God in clouds, and hear him in the wind,”

and to look upon all the phenomena of the universe as the expression of His wisdom and benevolence. By the exercise of ordinary observation, a great amount of knowledge may be gathered with regard to the different substances of nature, without the aid of special instruction; but yet there is a mighty difference between the careless view of the uninstructed, and the fruitful contemplation of the informed mind. How differently do the same phenomena appear to differently educated men?

“ It is the mind that gives its tone
To whatsoever we look upon.”

How cold and careless is the glance which mankind in general throw upon the various substances which exist in the material world! Yet, in that brute matter, science finds curious proportion and mysterious harmony,—powers absolutely fixed and appointed to every atom, which every atom does and must obey; powers which bind, in their appropriate condition, the solid earth, the flowing air, the much resounding sea; powers which circulate life and enjoyment through unnumbered forms of organization; powers which we may direct and control, but whose secret nature and origin is known only to Him who measures the hills in a balance. What are these plants which grow and blossom around you, these myriads of animals, full of activity and enjoyment? Wonderful as is the variety of their forms and functions, these forms and functions are derived originally from one small point of atomic

life—one single microscopic CELL, eluding the unassisted eye, but endowed with the power of development, of perpetuating specific forms for thousands of years, which are the same to-day as those which were embalmed by the old nations on the banks of the Nile.

What is this earth, from which we arise, and to which we must return? A rude and indigested heap of materials mixed in confusion? Such may be the opinion of those who toil, with weary hands and unreflecting minds, among the rough places of the earth; but such is not the conclusion of science. The earth is constructed upon a regular plan; its rich mineral treasures are placed within the reach of man; coal, marble, and metal lie in the earth according to fixed laws, which, established by observation in one country, serve to guide and stimulate new discoveries in another. And if you raise your eyes towards the

“Immortal lights which live along the sky,”

how great are the privileges which astronomy exercises! Beautiful and glorious to every mind is the contemplation of the starry vault, even to those who, having no knowledge of the telescope, are no further advanced than the Chaldean shepherds, who watched by night the “wandering fires” of heaven. But how different is this rude admiration from the sentiment which fills the mind when, with Lord Rosse, we look closely into the moon, with her volcanic mountains kindled by the sunlight, and casting long shadows over the sandy plains; or contemplate the dark body

of the sun, within his tremulous atmosphere of light ; or compare the planets with their accompanying rings and globes ; or, passing by the azure sphere of *Herschel*, watch the comets—light as vapour-wreaths—perform their course of five, or five hundred years, and return, obedient to the sun, the great centre of light and life ; or far beyond planets and comets, far beyond the power of numerical expression, fathom the universe of stars—

“ World beyond world in infinite extent,
Profusely scattered through the blue immense.”

It may be said, and said with truth, that it is not given to many men, or rather certainly it is not given to any man, to work out, by his own strong will and devotion, the fundamental truths of all natural science. No ; not even to a Newton, a Herschell, a Linnæus, a Faraday, or an Ehrenberg, to exhaust even one of the rich kingdoms of nature. But we may derive much benefit from the labours of those eminent individuals : men who will teach one another, by proper methods, and with proper assistance, will find that there is really no one department of nature, however mysterious, which cannot be, in a considerable degree, brought within the comprehension of ALL. The York Institute was founded expressly for the purpose of assisting those persons who had not the telescope of Lord Rosse, or the laboratory of Faraday, and who had not the leisure of a Herschell. It was founded for the purpose of benefiting all ingenious minds, whether young or old, and enabling them to gather

as much information as could be acquired by mutual instruction, on all these various subjects; it was founded upon the principle, that the knowledge of the history of man is good for man, and that the knowledge of nature should not be withheld from a being appointed to perform so important a part in the general scale of creation. And, accordingly, the members of this Institute have been furnished with a vast number of important aids for the promotion of knowledge. There were delivered in the old Institute, during the first ten years of its existence, 201 lectures, to the audiences assembled on this spot. There have been delivered in seven years, since the Institute was called "The York Institute of Popular Science and Literature," 239 discourses, making in the whole 440 lectures. I have looked over the catalogue of these scientific and literary efforts, through the kindness of Mr. Fox, our indefatigable Secretary, and I am surprised to find that so great a variety of interesting subjects has been discussed. The average attendance upon these lectures amounted to about 100; and, I think it impossible to doubt, that a vast body of important information has been diffused by them through the inquiring minds of York. In addition to the lectures, which have, for the most part, been delivered by members of the Institute, there have been a great many discourses by several gentlemen, eminent in learning and science, who have come from a distance. And there is a third source of gratification, perhaps the most important of all, and one which, it is to be hoped, will be considerably aug-

mented in power and importance in this Institution, and that is the Library. Thanks to heaven that we can read! Thanks to heaven that there are books worth reading! books in which the wisdom of ages is collected in a convenient space. Yes, eternal honour to that Pelasgian Hero, that mythical Cadmus, who crossed the snowy mountains, and brought the Asiatic gift of letters to the western world, and with that spell awoke the magic muse of Greece! Honour to those scribes—not pharisees—who, on the papyrus leaf and parchment roll—more durable than brass or stone—recorded the sacred traditions of Judæa, the eloquence of Greece, and the annals of Rome. Honour to those honest workmen of the valley of the Rhine, who multiplied, by forms of wood and metal, all the literature of the ancient world, and gave to mankind a mass of knowledge that can never die, which no Arab chief can burn, and which no accident can in future destroy. How important to read the books which preserve the undying words of Newton, and those illustrious men who have bequeathed to us the legacy of their highest thoughts, treasured up and put out to the noblest uses, for the common good of all mankind!

It behoves every man, whatever his rank in life, to take advantage of opportunities such as these, and especially it concerns the labouring man. We are, or ought to be all labouring men; I do not think there is one individual among the respectable company now assembled around me, who does not wish to rank himself as a working man. Some labour by

the hand, and others by the head; but no one must be idle. Nor should we insist too much on the distinction between one class of labour and another; nor admit, for a moment, the great error, that labour is a curse. The necessity for labour, imposed by Providence, we cannot avoid; but it depends only upon the mind to fulfil the purpose of Providence, and convert that labour into enjoyment. A labouring man who should join this Institution—who should go through the course of instruction which it offers, and have his mind largely opened to what may be acquired here, may look around him and see few persons to be envied by him. And gradually greater advantages will arise to the humbler classes of society. Already a sentiment prevails in our legislature favourable to the devotion of a part of the national profits of industry to the comfort of the people. Already the legislature has removed the tax on scientific institutions, and thus economized their resources. Already private wealth and friendly associations have established pleasure gardens accessible to the people at Derby, at Liverpool, and at York; and it is desirable that the people should be instructed to profit by these advantages. In fact, they are rapidly gathering such instruction in this Institution, which I trust will be as effective as those situated in towns with a more numerous population.

York, I maintain, is admirably situated for an institution which is especially destined to direct and encourage the study of nature and researches into the history of man. Look at the long ranges of lofty

mountains which form the western boundary of Yorkshire, and consider those beautiful dales which intervene, with their many noble waterfalls; or go to the sea-coast, and mark, from Flamborough-head to the mouth of the Tees, the mighty wall of rock which resists the German ocean. Within this area, is ample occupation for the naturalist; and from York, as a centre, the access is easy in every direction, by the iron roads, made through the influence of some of the principal of our fellow-citizens. These roads will carry us with the greatest celerity and ease; and the managers of the railways, I am sure, will never show themselves unwilling to assist the desire of the members of such an Institution as this, to visit interesting portions of the county. And to the student of British history, York offers unrivalled memories. Around us still remain the walls which guarded the Roman legion; here died the Roman emperor; within those towers the Saxon earl opposed the Norman conqueror; the city yet possesses some of her splendid abbeys; and still we may walk around the battlements from which Newcastle and his Royalists defied the Cromwellians under Fairfax, before the fatal field of Marston Moor. And if you turn to the history of art, remember that Flaxman, the greatest of modern sculptors—though not one chisel-stroke of his remains in the city which should be proud of his birth—was born at York. Etty was born at York; and it is surely time this great artist were invited to accomplish some work worthy of himself, to be treasured in the city which he loves as a memorial of his powers.

Let me say one parting word as to the future course to be pursued by this Institute. I cannot help thinking, that the spirit which has reared this hall, which, in fact, has pledged our finances to some considerable extent in the raising of it,—I cannot but think that this high spirit is destined for a very prosperous career. To me it appears, that if we do our duty, the interest of the whole population of York will be gathered around the Institution; and it will become very much more beneficial than it has hitherto been. I believe it may confer greater benefits than it has ever before conferred on the inhabitants of York. But nothing of this kind will happen, it will make no progress, it will gain no sympathy, and it will accomplish no good work in future, unless we adhere, in the most strict manner, to the principles upon which it was first established. The Institute will not prosper as it ought, unless the members manifest its power of usefulness by real improvement in themselves, and show, by their own conduct, and by their own general elevation in the scale of society, the most convincing proof of the benefits of knowledge. Members of the Institute! by constantly attending to the means of instruction which the Institute provides, you will win others to follow your example; the public favour will follow you; every thing will be prosperous before you, and it will be in your power to perpetuate and make more flourishing the institution to which you are attached. You have in hand a noble cause; you have powerful assistance; you have a great work to perform; I will conclude by advising you TO GO AND DO IT.

ADDRESS

DELIVERED TO THE MEMBERS OF

THE MANCHESTER ATHENÆUM,

ON THE 22D OCTOBER, 1846,

BY THE RIGHT HONOURABLE THE EARL OF CARLISLE.

I TRUST that I shall be believed when I say I appreciate my situation. Whatever may be the incidents of distinction or responsibility with which I am elsewhere invested—honoured as I am by the choice of no mean constituency on the other side of the hills which bound your prospects—permitted as I am to bear a part in the highest councils of the state—I can in all truth assure you that I find something very new, fresh, and large in the honour of being called upon to preside at this annual jubilee of the Manchester Athenæum. The sense of honour, and let me add with as much truth, of difficulty also, is certainly not lessened when I call those to mind who have preceded me in the same post, upon these brilliant occasions. The last echoes of this assembly, which I now feel it is a hardihood in me to rouse earnest as his own spirit, of Mr. Serjeant Talfourd—again, answered to the accents deep, gentle, and

why, there is something in the very name of an Athenæum which bespeaks it to be a fitting theatre for all the utterances of the bard of *Ion* and the *Athenian Captive*. Next before him, I well know that your souls must have thrilled under the spell of so potent a magician as Mr. Disraeli; even in the very hottest conflicts of party, from which we are here happily sheltered, I think it was impossible even for his most exposed victim to have been blind to the point, the brilliancy, the genius, which played about the wounds they made; but here, on this gorgeous stage, amidst this apt and congenial auditory, on the themes so familiar to him of literature, of art, of imagination, I, who could only read in cold print what he said, without all the kindling accessories of time and place, can yet easily believe how the admiration, which could not be withheld even on the barren ground of political controversy, must have been heightened almost into enchantment. And it was at the first, I believe, of these assemblies, the first at least held upon this scale of size and splendour, that its chair was filled—better it can never again be—by Charles Dickens, that bright and genial nature, the master of our sunniest smiles and our most unselfish tears, whom, as it is impossible to read without the most ready and pliant sympathy, it is impossible to know, (I at least have found it so,) without a depth of respect and a warmth of affection, which a singular union of rare qualities alike command. I have made it my business, too, to look at what they said when they were here; but this, while it certainly

has ministered very highly to my gratification, has also only added to my embarrassment; for it would be indeed an office irksome to you, and hopeless for me, to endeavour to recall in feebler expression, and fainter colouring, what was portrayed by them with so much richness and exuberance. I therefore feel that at this time of day, and, above all, in this place, it would be an impertinence in me to inculcate, that learning in any community will not prove a dangerous thing—that commerce, which has formed, and which now ennobles a community like this, is the natural ally of literature and art—that the tastes which may be here encouraged, the habits which may be here fostered, are those which give a grace and glory to the lives and characters of men. Yes, I do rejoice with the most gifted and ardent of those who have preceded me—of those who now surround me—I do rejoice over the impulses and associations which are impressed upon the times we live in, and which institutions like this, and assemblies like this, serve to rivet and transmit; I rejoice that English commerce is rising up to the height of its position, and feeling the real dignity of its calling; but this the Tuscan, this the Genoese, this the Venetian did; the worthies of our English commerce are content to be merchants, without being princes; if we have Medicis, they are not intent on seeking alliances with the thrones of Europe; their best aim will be now to raise to the same level of knowledge, of happiness, of virtue, the whole body of the people. I rejoice that here, in Manchester, beyond all dispute the first city in the

ancient or modern world for manufacturing enterprise and mechanical skill, you have not been content with that display of wealth which jostles in your streets, and is piled in your warehouses; you do not think it enough to raise factories tier upon tier, and magazines that will accommodate the traffic of the world, but you have thought it part of your proper business, too, to build and to set apart a haunt for innocent enjoyment, for useful instruction, for graceful accomplishment, for lofty thought—the shrine of Pallas Athene in a Christian land. May this long be the resort, together with those kindred and neighbouring institutions, which this does not aim to eclipse or overlay, but to encourage and excite, where all who are engaged in the business and the labours of this unparalleled hive of industry may find rest for their flagging spirits, a neutral ground for their manifold differences, invigorating food for their reason, and an impulse, onward and upward, to all the higher tendencies of our nature. I am glad to perceive that, as the benefits of the establishment are confined to no condition, no class, no denomination, so they are not exclusively appropriated even to one sex. Women have always played an important, perhaps not uniformly a beneficial part in this world's history. I believe as civilization advances, they will play both a more recognised and a more elevated part than they have ever yet done; and I trust that among the many currents upon which the restless activity of our age is eddying along, a prominent one will be devoted to making female educa-

tion sound, substantial, and enlightened—all it ought to be for training those who themselves must in any case be the real trainers, as they may be the best trainers, of our citizens and our workmen. From all I can gather, the wholesome effects of your association have, by no means, been confined to its own walls or its own operations; it not only walks its own round, but is suggestive of many kindred processes; or, if I may borrow an illustration from one of the disputed problems of the upper skies, in its career of light and progress, it throws off from itself separate bodies, which harden into distinct masses, and glow with independent lustre. Has it not been very much under the impulse of ideas struck out and caught up here, in your lecture rooms, in your social gatherings, in the more earnest friction of your discussions, by the agency mainly of your members, your officers, your founders, that the public parks, which have added so much both of material and of real beauty to your great city,—that the public baths and wash-houses, which have still deeper effects than on the mere linen and the skin,—that the attention given to sanitary regulations of every description, have owed their rise? Can you look to other sources for industrial schools, for the weekly half-holiday in warehouses, for the early closing of shops? With reference to this last topic, one indeed not remotely connected with the best interests and widest extension of this Institution itself, my attention has been especially called to a meeting, which I believe it is proposed to hold on this same classic ground, by the members of

the Manchester and Salford Early Closing Association. Other duties would preclude me from availing myself of the obliging invitation I have received to attend that meeting; and, indeed, I doubt whether it is a matter precisely of that kind in which a stranger ought to interfere; but if a general arrangement can be brought about between the employers and the employed, which should secure to your rising manhood a greater amount of leisure for blameless relaxation and for mental culture, no one will rejoice more cordially than I shall. You will perceive that I have not refrained from some of these obvious topics in connection with the Institution, which the part assigned to me of opening the proceedings of the night necessarily almost imposed upon me. Let me turn for a little time from the Institution to yourselves—you who constitute it,—who are its essence and its life. I perceive that one of the orators by whose eloquence you have heretofore been so much delighted, addressing himself to the youth of Manchester before him, told them with emphasis to aspire. Far be it from me to tell them otherwise; all who feel within them the sacred flame—who are strung for the high endeavour—who have girded themselves for the immortal race—I would address in the same terms, even in the terms of the great moralist poet, Dr. Johnson:—

Proceed, illustrious youth,
And Virtue guard thee to the throne of Truth!
Let all thy soul indulge the generous heat,
Till captive Science yield her last retreat;
Let Reason guide thee with her brightest ray,
And pour on misty Doubt resistless day.

It is, indeed, by such means, by patient inquiry, by diligent study, by humble-minded searching after truth, that all real knowledge is to be wooed by man, equally removed from the shallow presumption which sets up its own speculations and sophistries in the place of a conscientious reason and a disciplined faith, and from the blind bigotry which bawls down fair argument, decides against proof, and condemns without hearing. But I was saying that I did not wish, I could not wish, to damp or discountenance the purpose of your young men to aspire; for well I know that genius is the property of no condition, the apanage of no class of men: it will often be seen to rise, like the goddess of old out of the ocean billow, from those surfaces of society where you would least expect to find it, break through all the surrounding uniformity, and shed sudden radiance round the new horizon. But, while I am ready to track its shining course, and bask in its genial warmth, in whatever orbit it may be moving, I would yet venture to remind you that there is something more admirable than genius, and that is virtue; there is something more valuable than success, and that is duty. The hope of succeeding in the world, and of playing a shining part, may sometimes operate powerfully as an incentive, but it is too apt to engross both the efforts and the admiration of mankind. I was struck with the import of an expression I once heard from a friend, though you will at once perceive that is not to be understood quite in its literal acceptation: the expression was, that heaven was made for those who had failed in the

world. Now, all sorts of unbecoming and unamiable feelings may undoubtedly accompany and embitter failure, just as every bright and blessed quality of the heart and mind may enhance and adorn success; but to aim at success, to meet with failure, and not to grudge it, to be oustripped by a rival, and yet

To hear

A rival's praises with unwounded ear,

this is an effort and a triumph, beside which all the ordinary successes of life are mean and trivial. Success, after all, in nearly every walk of life, from the aspiring statesman to the ambitious parish beadle, unless very carefully watched, very anxiously chastened, is apt to be made up of very coarse, obtrusive, vulgar ingredients, certainly not of heavenly temperament; while there is hardly a grace of character, a spring of self-reliance, an element of progress, with which failure, not caused by our own acts, and sustained with an even and brave spirit, may not ally itself. Depend upon it, in a great many instances, the world does not discover, does not examine its best; there are diamonds in Golconda more precious than any, the Pitt or the Pigott diamond, which ever blazed in the diadem of sovereigns; there are pearls in unopened shells more lustrous than any that ever shone upon the neck of beauty; the ages as they pass have known their Homer, their Raphael, their Newton, their Shakspeare; but there are prodigalities among the human creation as well as among all besides, that have never yet been fathomed; yet there has never

been any thing which, except by its own fault, has been lost or thrown away. What is the material point, to be Raphael or Shakspeare, or merely to be thought a transcendent poet, or an unequalled painter; to have conceived in the inmost soul the lineaments of the Holy Mother and the Divine Babe, the idea of *Lear* on the heath, or *Macbeth* at the banquet, or to have would-be amateurs commending the picture, or crowded audiences shouting bravo in the pit? Only impress your minds with this great truth—and bear it about with you both to your daily task and to your evening leisure, both to the privacy of your homes, and to your social musters, that it matters comparatively little to us what we may seem—it even matters proportionately little what we may do—it matters every thing what we are; what we may seem is subject to a thousand accidents and misapprehensions; what we may do is under the control of circumstances; what we are is entirely under our own. We may be all we should be; and no matter how humble the situation may be of any one among you, no matter how obscure the business which engrosses every precious hour, how insignificant the whole life's drudgery, yet in that obscure and unenvied situation, amidst that wearing and numbing drudgery, you may mould for yourselves the qualities, you may build up for yourselves the character, which princes, if they knew it, would trust, which multitudes, if they could discern it, would adore. I know that in venturing to speak upon these high topics of morality and conduct, with lips scarcely authorized, I run the risk of imperfect

explanation, as well as of much misconstruction. I know it is thought that addresses delivered on such occasions are rather apt to minister too much to the pride of man—to undue adulation of the intellect. I disclaim such tendencies; when I say you may be all you should be, I do not mean to exclude from the method those aids and sanctions which are too high to be here dwelt upon, and no one feels more convinced that reason as well as Christianity makes humility almost its most prominent grace. Who would not be humble who felt, as he ought, the loveliness of virtue, and the magnificence of knowledge? I should like to ask the men who have just added another planet to our system, or, as has been beautifully said, on an earlier occasion, “who lent the lyre of heaven another string,” whether their spirit does not recoil with modest awe, instead of swelling with self-sufficient pride, before the secrets of that space into which they have been permitted to throw a more far-seeing gaze than any of their fellows; and when the time shall come which to our enlarged and perfected vision shall unfold the whole bright mechanism of stars, and suns, and systems, we shall find in the laws which fix their stations, or which guide their mazes, fresh reasons to be reverent, acquiescent, and lowly. It is time, however, for me to come down from the clouds, and indeed from every thing else; I could hardly, however, have lighted on a more radiant resting-place on this earth than the present assembly. I only hope that all those who have partaken in its excitements will not merely carry away the transitory

orations to which it may easily give birth, but a settled determination, followed up by a corresponding practice, to give fair play and full scope to all the best and highest purposes of which the Institution is capable; they must be carried out by associated effort, but you will hardly fail to remark, at least it is generally the case in institutions of this character, how very much of the work is done by a very few out of the whole number. Now, what we want is more of individual energy in the whole body; each of you make the work his own; and let no member of the Manchester Athenæum think that he has done his duty without having done something, according to his opportunities, to give encouragement, efficacy, and credit to an establishment he ought to be so proud to serve. On my own part I have only further to say, that if, when the gay glitter of the scene has passed away,—when the strains of music are hushed, and silence has fallen on the voice of the speaker,—any one of you in the stillness of the quiet home, or amid the clang of the daily occupation, shall have derived a single encouragement to ennobling reflections or to worthy pursuits,—still more if any, under the sting of disappointment, or a sense of the world's coldness and alienation, shall have been reminded how little it really signifies, and that failure is one of the appointed accesses to Heaven,—if any word that has fallen from me shall have contributed to such encouragement or such alleviation, I shall then feel that I have not come to Manchester quite in vain.

ADDRESS

DELIVERED TO THE MEMBERS OF

THE MANCHESTER ATHENÆUM,

AT THE PUBLIC BREAKFAST,

ON THE 21st OCTOBER, 1846,

BY THE MOST REVEREND RICHARD WHATELY, D.D.,

ARCHBISHOP OF DUBLIN.

THE ARCHBISHOP of DUBLIN said—It may be quite superfluous in me to detain you with any expression of my hearty sympathy and warm good wishes towards this place and Institution, because the very circumstance of my being here expresses that sufficiently. I certainly should not have left the very numerous and pressing calls that I have in Dublin, overburdened as I generally am with business, to come over here for the sake of looking at a mere rarée show, or to attend a dance. I thought it incumbent on me to show the very great interest I have in every thing concerning the diffusion of knowledge. I say from all the inquiries I have made, and from all I have seen and heard, that I have no reason to repent the coming for such a purpose, for every thing has come up to the expectations and wishes I had formed. I feel, of course, great interest in the diffusion of knowledge

everywhere. I need not, however, say any thing about that ; because my life, in fact, has been occupied in official or non-official efforts of that kind. But I think that education is more peculiarly important in a wealthy and populous manufacturing town like this ; and I must say, though it may not be the warmest kind of panegyric, but it was what strikes me, that not only does this Institution do credit to the town of Manchester, but the want of it previously did the town great discredit. I think that it is more than incumbent on such a wealthy and populous manufacturing town as this, to take care that the progress of knowledge should in some degree keep pace with the progress of wealth and population ; or else, standing still at the same point in respect of mental cultivation and knowledge, whilst there was a continual advance in numbers and in wealth, the result must be, that what would have been a sufficient amount of instruction for a small and poor population, would be disgracefully small for one very much on the increase.

Of course, I do not at all expect, nor could I ever have expected, that an Institution like this should furnish to the whole of its members a complete education. They are already engaged in occupations which render it quite impossible to think of going through a curriculum like that of a university education ; but, considering that the lectures which are delivered at this Institution are combined with access to a good library, it does appear to me to afford all the facilities you can expect for those desirous of improving their minds, so to improve them as to acquire what

knowledge their leisure will allow them, and to finish what may have been left imperfect of their previous education. And I am sorry that there is a deficiency in that point in the country I have come from. Throughout all Ireland, indeed, we have been a good deal behind in education, although a great advance has been made towards the improvement of education—or rather, I may say, the introduction of education—amongst the poorer classes. There has also long been, as you are aware, a university for the class of gentry; but it appears to me that we are cultivating the highest and lowest, and leaving the middle classes neglected. Those who are not brought up to the learned professions, and who are at the same time far removed above the rank of mere labourers and paupers—for them, I am sorry to say, there is no adequate provision—for the class of tradesmen, clerks, in short, those who have lately been spoken of so scornfully in this town, as shopmen and apprentices. In fact, there is for these so great a deficiency of good education, that I am almost afraid the common labourers will surpass the classes immediately above them, in a few years' time, if some efforts be not made to diffuse education amongst them. We want better schools for the middle classes; and we also want institutions that will furnish a taste for reading books, and not only the taste for reading, but the capacity to read with profit. I conceive that the lectures, or the library, here, would each be very imperfect without the other, because the lectures create a taste for reading, and yet they very insufficiently supply the

want of that. Access to lectures and to books furnish exactly—I will not say a perfect system of education, but just the very best means of improvement which can be supplied to those, the main part of whose time is occupied in the necessary business by which they are to gain their bread and maintain their position in society. Some people, indeed, may object that it is a crude sort of knowledge that is picked up—that many read with very little profit, and that many do not read under the best system of tuition and instruction, and take away very imperfect notions of the lectures; and so on. I dare say that the kind of study which the members of the Athenæum pursue is not, in many instances, the best that could be conceived, nor such as is bestowed upon persons who attend our universities, and who have nothing to do but to store their minds with useful knowledge. But the alternative is not whether there should be this kind of education or not, but whether the young and the elder men should spend their time in card-playing, drinking, and perhaps worse occupations than these, or whether they should have some degree of intellectual culture, although not the most perfect that can be conceived. Those who speak of books ill read, or perhaps not the best calculated to improve the minds of those selecting them, should consider the alternative, what profane and dissolute conversation would take the place of them. And with respect to the books themselves, I dare say that the volumes which store your shelves are extremely well chosen; but as for newspapers and periodicals, probably you take in

those of all sects and parties. And, undoubtedly, they who have all these before them must have an enormous amount of trash ; there must be a great deal of the bad and the false in all these newspapers. There is no kind of misrepresentation that may not be found in newspapers and periodicals of one class or another. But what would be the case if a man only read one of those newspapers? His mind would become imbued with all the falsehood and errors that one mind might crowd into it ; and if he read none at all, then he would become associated with one clique, whose conversation, perhaps, would be as little edifying as those newspapers. When a man reads all the papers, he has both the good and the bad, and can choose for himself ; and if he does not choose wisely, at any rate he has the chance offered to him of doing so.

After all, it is the will of Providence that man should be exposed to the temptation of hearing truth and falsehood ; of seeing a good and a bad example. Wherever we go in life, even in the darkest alleys of literature, a good and an evil example will always be put before us ; and because this world is not heaven, we must be left to make our choice between good and evil ; but, the more a person's views are enlarged, and the wider the choice that is offered to him, the better hope there is that he may take the good and leave the evil. All that we can do is to give him light—light in every possible direction ; and if a man chooses to make a bad use of his eyes and ears, and of his other faculties, all that we can say is, we have

done our best; we cannot make this world heaven; but if we put it into the power of men to cultivate their minds, and get a knowledge of good and evil, that is precisely the system which the Almighty himself has directed us to pursue, and which is pursued by Himself in the government of his creatures. We must guide ourselves, with his help, according to our own responsibilities, and the faculties He has endowed us with. We may say, as the inspired prophet did in the name of his Heavenly Master to his people, "Behold, I set before you this day good and evil; now, therefore, choose good."

ADDRESS

DELIVERED TO THE MEMBERS OF

THE MANCHESTER ATHENÆUM,

AT THE GRAND SOIREE,

ON THE 21ST OCTOBER, 1946,

BY THE MOST REVEREND RICHARD WHATELY, D.D.,

ARCHBISHOP OF DUBLIN.

HIS GRACE the ARCHBISHOP of DUBLIN, said—My lord, ladies, and gentlemen, I was invited in the first instance to attend this meeting, and I was requested to make some observations, whatever might occur to me, in reference to the subject of it, without, of course, the possibility of its being supposed by any one that I could give you any information respecting the affairs of this Institution, of which you must all know so much more than I can do. And those persons have mistaken my thoughts who have supposed that I could come forward merely to pronounce an empty panegyric upon such an Institution, whose merits are so much better known and appreciated by yourselves than by any one else. It would be quite superfluous for me to detain you with any lengthened observations upon the important and beneficial tendencies of such an Institution, because, I think, the

very circumstance of my leaving behind in Ireland very important and pressing business, and coming over to be present on this occasion, shows how very highly I value an Institution of this sort, and how warm is the sympathy which I have with all the supporters and members of it. Very likely I may be expected to say, now that I have come over, and have visited and inquired into your Institution, what I think of it; and I think sufficiently well of it to say with respect to it that I am not disappointed. I shall not, for I think that would be an affront to you, say that I feel surprised at the origin of such an Institution, or that it is any thing more than I expected from a great and wealthy place like this. I feel, on the contrary, that, cherishing that love of commerce and activity which necessarily characterises a city like this, to have paid all attention to every subject connected with gain, and to have neglected altogether so important an Institution for the improvement and enlightenment of yourselves and fellow-citizens, would have subjected you to just reproach. I trust that you will think it no insignificant praise, if I say I think you have done your duty. I was greatly interested in hearing of such an Institution in so very important a portion of the United Empire—in a city which, I think, may be regarded in some respects as a kind of representative of the empire; for no where, I can assure you without flattery—for of that I am incapable—no where do I feel more completely in England, than when I am in Manchester; because it has to boast of some of the most distinguished arts, and of some of the most

characteristic feats of ingenious enterprise, that the British empire ever displayed. In other countries we may see the plough at work, we may look upon splendid armies, and upon fine architecture; we may see many things to be admired in many parts of this kingdom, but none so characteristic of the people who were reproachfully termed a nation of shopkeepers. We have lived to see that nation of shopkeepers obtain military, as well as other triumphs, over those who have so reproached them. But I conceive that all these triumphs are insignificant, compared with the great triumph of diffusing wealth, comfort, and civilization over so many parts of the world as this empire does, by means of her manufactures and commerce.

I say, then, that it would be a reproach to so wealthy, so populous, and so active a city as this, if no attention were paid to any thing but the mere pursuit of gain; and therefore it is that I consider that you were doing a duty, and nothing else than a duty, in establishing and supporting such an Institution as this; with the working of which, I trust, you will have more and more reason to be satisfied every year of its continuance. I understand that the fruits of it have been perceived in the improved character of the rising generation who have partaken of its benefits; and I trust that those good fruits will be seen yet more and more. To instruct you, however, in the benefits, the objects, and the character of such an Institution, would, as I have said, be impertinent in me, who know so much less of it than you do. I have even less knowledge than yourselves, not only of

this particular Institution, but perhaps of this whole class of Institutions; for, although I have been engaged for a great number of years in the diffusion of knowledge in one shape or another—in what may be called education, either complete or partial education, since all diffusion of knowledge is a portion of education—yet I have never been specifically connected with an Institution precisely of this nature. It is the higher, and the lower institutions with which I have been officially connected. I have been connected with education in one of our universities, which are seminaries for the highest classes, the nobility, the gentry, and the learned professions; and lately, and in a still more important degree, I have been connected with charity schools; but that which is immediately between the two, that which tends to improve the classes between the learned professions and the very lowest of the people, I have not been so specifically and closely connected with. Still, education, in some shape or other, either by actively engaging in the calling, or by publishing or editing works connected with it, or by superintending or forming establishments for the promotion of education, I have been connected with, very actively and zealously for about thirty-eight years. And I presume that those who have done me the honour of calling upon me to address some observations to you this evening, have done so from the thought, perhaps, that I should have to communicate to you some of the results and observations emanating from my own experience. I shall do so, but very briefly, begging you, in the first place,

to bear in mind, that when I said that I had been for thirty-eight years connected with education, I did not mean that I had been occupied in making speeches upon it. I have been engaged in the practice of it, and not in haranguing upon it; and, therefore, it is not to be expected that I can address you with the same eloquence that others can do who have not seen and done so much as I have.

You will remember, then, that in the observations which I make, and they shall be but brief, I am not saying any thing that applies so specifically and exactly to this Institution, because it is not with that class I have been most specially connected; but I wish to observe briefly, that one of the truths which should be most impressed upon the mind by all experience is, that, spite of all the dangers threatened by, and objections raised to, the diffusion of education, still upon the whole, I am more and more convinced that the wide diffusion of knowledge will always tend, more or less, in the end, to the diffusion of every other good. I have spoken of the dangers attending it, and dangers there are; I do not disguise it. I believe that, on this point, I do not differ at all from the noble lord who so eloquently addressed you on the outset. When he spoke of there being no dangers in the diffusion of knowledge, I believe that he meant, as I do, that the dangers are not such as are to be put in comparison with the dangers of ignorance. It is impossible, by keeping men in darkness and ignorance, to secure them from temptations. It is impossible to guard men against evil—though you were to shut them up

in the cells of hermits—they must be exposed to temptation, in one shape or another. Men are liable to be deceived and misled; but it is in darkness more than in light; in twilight more than in full sun; that error is liable to be mistaken for truth. I should be ashamed to dwell at any length, especially before such an audience as this, on the advantages of knowledge; but I would have you be well assured, for I can say so from my own convictions and experience, that the advantages of diffusing knowledge are not so generally admitted as might be supposed from people's professions. I know, for a fact, that there are some persons who deprecate the diffusion of knowledge; but yet they will give in to it, and profess to favour it, merely because they find that they must swim with the stream, and cannot oppose it. I am continually meeting with persons who are for embarking in the vessel of education, in order that they may be able to retard its course. They are deprecators, above all things, of *too great* a diffusion of knowledge—too much education for the people—too much knowledge for their station in life; which they say, is likely to puff them up. Something may be given, but not too much. Why, of course, no one is an advocate for too much of any thing; but if all mankind, down to the lowest peasant who follows the plough, were to obtain as much knowledge as was ever possessed by the most learned man that ever lived, I should still say that it is very far from being too much, provided it was well-digested knowledge; and that there was a *well-balanced* cultivation of the faculties. I suppose there

are comparatively few who dread danger to loyal principles, submissive obedience to the government, and all the other social virtues, from the sort of knowledge diffused in this place, amongst the middle classes of society, *more* than they apprehend it from a diffusion of the same sort of knowledge amongst the peasantry. The same argument, in fact, will apply to both classes. If the mere knowledge of his letters does not tend to make a man less contentedly submit to his lot as a labourer, one does not see why more extended knowledge should unfit him for some other subordinate station. Why should not knowledge, if that be its tendency, make *all* men try to rise above their station; all but in the highest?

I believe that the danger lies here; that where knowledge is very rarely and scantily communicated, the one who, by some good luck, happens to get above his fellows, will think himself fitted to be removed to a higher class. But communicate the same knowledge to *all* that class, and they will not be raised above it. One of the greatest conservatives that ever lived, as all would allow, Dr. Johnson, used to say, when speaking upon this subject, "Why, sir, if a man has a laced hat, he thinks himself too good to go to the plough; but if all men wore laced hats, we should see men ploughing in laced hats."

But, then, there is this objection,—and it may lie against all communication of all human good of every kind,—“an educated man, of cultivated intellect, but a bad man, (which he certainly may be,) is more dangerous than he was before.” It is very true. A

man who possesses the use of his limbs is more dangerous, if he be a bad man, than a cripple. A man who has the use of his speech, of his eyes, is more dangerous, if he be a bad man, than a blind, or deaf mute; but, unless the tendency of the cultivation of the mind is to make a man worse, we are rebelling against the dispensations of Providence to refuse any good to our friends and countrymen, to those above and below us, on the ground that it may be abused.

This, however, I wish particularly to point out, though it must have occurred to most of you—wherein does consist the great danger to the community of a man of cultivated intellect and great powers, sharpened by exercise, if he happens to be a bad man? What is the chief danger to be apprehended from him? Why, that he will act as a demagogue on the unthinking multitude. He persuades the ignorant to receive his statements, to adopt his fallacious conclusions, to follow in all his wild schemes. He makes them his instruments. He may incite them to rebellion—to all sorts of mischievous and dangerous conduct. Take away those instruments, by making those men good judges of truth and falsehood, and he has no longer any thing else to work upon. The agitator, the demagogue, the partizan leader, all the mischievous men who turn their talents and acquirements to such an account as that, are a kind of quacks. It is well known that if a man has a certain knowledge of chemistry and medicine, he may play on the credulity of the ignorant by persuading them to swallow his mischievous drugs; but if all understood medicine,

there would be none to *take* his quack medicines. Let all men, therefore, be so educated as to be capable of distinguishing the true from the false, and then, however ill-disposed a man may be, he will not be able to mislead others. I cannot conceive of such a thing as a lawless and violent mob consisting of well-educated men—I mean well-instructed men, even setting aside moral instruction. Supposing that they were all bad men, there would be more generals than soldiers; they would not be so ignorant as to allow one to mislead the rest. I conceive, then, that the best way of guarding against the danger of putting power into the hands of bad men is to diffuse, as widely as possible, that power which knowledge confers. But I am convinced, also, that the tendency of knowledge is not indeed necessarily to secure good moral conduct and character, but to further and promote it. If our religion were a system of blind superstition, people would be the more religious the more blind and unthinking they were. If our government were an unjust and oppressive despotism, men would submit to it the more readily, the more they were reduced to the state of brutes and children. But if the conduct which we recommend to them as men and as Christians be conformable to right reason; if our religion be based on solid evidence; if our government be founded upon just and fair principles, those persons will be the best Christians and the best subjects, other things being equal, who are best able to distinguish between truth and falsehood.

I wish to be distinguished from those persons who

consider that the mere diffusion of knowledge constitutes the whole of education. I say that it is a good thing ; but I do not say or think that it is the whole of education ; and I wish no one to go away with the idea that I consider every man the wiser, or likely to be the better, or the better educated, for all the knowledge he may have obtained, unless it is well regulated, with a judiciously balanced cultivation of the faculties. But I say that knowledge, as far as it goes, is a good thing ; and the people should be merely warned against the danger of ill-balanced knowledge. The man who entirely devotes himself to the cultivation of some one faculty, to the neglect of the rest—the person who devotes his attention to the cultivation of the intellect, to the neglect of the moral faculties—all these persons may be advanced in their own particular way, but it is a narrow, ill-balanced, injudicious, and hurtful education. But what I maintain and contend for is, that it is not in that case the knowledge of something that does the harm, but the ignorance of others. It is not the cultivation of this faculty, but the neglect of that. The same church, or other place of worship, that may be sufficient for a small population, becomes utterly inadequate for a large population. In like manner, the same degree of moral and religious education which suffices for a young child or for a person of very limited attainments generally, becomes deficient when he has acquired a great deal of secular knowledge. The *church in his own mind*, has become too small for him ; but then, the evil is not in the increase of the population, but in the want

of other churches—not in the cultivation of his intellectual faculty, but in the neglect of the moral part of his nature.

My argument may be illustrated by the growth of the human frame. In the case of children who are rickety, we are accustomed to say, that the head is too large for the body; or the limbs too large for the trunk; but we find in this case, not that the head or the trunk has grown too much, but that the limbs have not kept pace with it—that the growth has not been even and well-balanced. And it may be added, that when a child is growing, it is not only far better, but far easier, to encourage the growth of the defective parts than to stop the growth of the body altogether. The latter is impossible; the former may be accomplished by medicine and diet. I say, then, that when a community is advancing in mental culture, it is not only far wiser, but far easier, to give that culture the right direction, so as to prevent a disproportionate and rickety growth, than to stop altogether the progress of the human mind. There are some who look back with regret to the times of our simple-minded ancestors, who were content to believe as they were told, and do what they were bidden—who sought for no knowledge beyond their humble sphere; and we are taught to consider that those were the days to which we should look back with the greatest admiration, and with pity for the present generation, in which it is supposed there is too great a diffusion of light. But it is in vain that we should endeavour to clothe the adult in the swaddling clothes of child-

hood. Even though that were a good thing, we cannot do it. We must make the whole system keep pace, if possible, with the unavoidable advance; and then, instead of remaining children, we shall grow up into well-formed adults. Others there certainly are whose views are not more enlightened, although they are more cheerful. They hail with rapture any kind of advance, and utterly overlook all the dangers which I have been dwelling upon of disproportionate and ill-balanced advance. But I would exhort you to keep clear of both of these—to consider advance as both necessary and desirable, but to keep in mind the importance, as much as possible, of having in yourselves, and in those under your control, an equal and well-proportioned and well-balanced advance. Listen not to those who sigh vainly for the restoration of infancy, nor to those who exult in the growth of a distorted maturity; but endeavour to keep up an equal and well-balanced advance, and then advance as far and as rapidly as you can.

I have had great difficulties to encounter in that department of the diffusion of knowledge which has chiefly occupied me for the last fourteen years. You will understand that I allude to the introduction of national education into Ireland—and, sympathizing so warmly and so strongly as I do in this place and in this Institution, I cannot feel a doubt that you also feel some sympathy with what is going on in the sister country, and in the difficulties and exertions of those who have been labouring to enlighten and improve it. I cannot suppose that you look upon the Irish as

aliens, and as persons unworthy of your regard. I cannot suppose that you grudge them that knowledge which you say you are eager and anxious to diffuse among yourselves. I cannot suppose that you would wish them to be, or consider that they must necessarily be, irreclaimable barbarians. I sympathize warmly myself with all your exertions, and am delighted to hear the manner in which you have manfully met, and overcome, the difficulties which threatened this Institution in its infancy. I have also had great struggles on the other side of the water, and I am happy to say that, in spite of all the storms, we are advancing rapidly to the desired port. I do trust and believe that, with the blessing of Divine Providence, the Irish national system of education will prove, when there has been time for it to make itself thoroughly felt—that is, when the generation brought up under it shall come into activity—I do trust that it will prove one of the greatest boons which has been conferred by government on any part of her majesty's dominions. And I think that I should be wanting, not to myself merely, and to the government which has been supporting that system, but I feel that I should be wanting to the cause of education—I should be wanting to the rights and claims of the poor Irish, if I neglected to take this opportunity, if you will so far indulge me, of giving a contradiction to some of those calumnies with which our Irish national system has been assailed. I would not hear this Manchester Institution assailed with any calumny in Ireland, or elsewhere, when it was in my power to repel it. And I

believe that none of you here would willingly listen to any calumny that tended to disparage the merits, or to defeat the objects of such an Institution as ours. Ours, ladies and gentlemen,—I mean the national system of Ireland—is not a godless and irreligious system. We do not undertake to teach the whole of their religious belief—to give the whole of their religious education to the children of different denominations—because we could not possibly do that for all of them together, without violating the consciences of some of them. We do not propose, therefore, to give a complete education. The system is to leave to the parents of each child the religious education of that child; the right of religious education in that mode, be it right or wrong in *my* opinion, which *they* themselves think the best. And we give to the children jointly, and in friendly intercourse with each other, all the instruction which they can conscientiously receive together. And so much of that instruction, I am happy to say, consists of that knowledge of sacred history—of those great truths of our common Christianity, in which, thank heaven, we all agree, much as we differ upon other points—that I could produce from many of the national schools, the attendants at which, to the extent of more than seven-eighths, are generally Roman Catholics, children who could stand an examination, not only in secular learning, but in knowledge of the Scriptures, with any school that you may select in this country. But the denial of the Scriptures to those willing to read them, you have often, I dare say, heard charged against the system; and I

would put it to you, as plain Englishmen, whether it is right to force upon children any religious instruction which their parents may disapprove of. I never can believe that the Founder of our religion, who, when he was apprehended and dragged away to an ignominious death, declared that He could call in twelve legions of angels to his rescue, and who told his over-zealous disciple to put up the sword into its sheath—I never can believe that it was his intention or desire, that his religion should be forced upon any one against his inclination or his conscience.

I will only notice one more point, which I give, not as the only one that I could produce, but as a sort of specimen of the falsehoods and misrepresentations by which our system has been combated, and which, I think, will, in the end, tend rather to strengthen than weaken it; because falsehood and misrepresentation would not be resorted to by opponents, if they had facts and truth on their side. What I allude to is the report which has been often circulated, that, although it is allowable, it is said, for the children whose parents do not disapprove of it, to read portions of the extracts from the Scriptures, yet, if any *one* child should object to the reading, that precludes the whole school from the benefit, and shuts out the Bible from the whole school. I am bound to believe that those who circulate that report do not know of its falsity. If they have taken any means to ascertain the truth of their statement, they must then be repeating an utter and deliberate and calumnious falsehood, for it is totally without foundation in truth.

But I can only acquit them of the wilful falsehood, by supposing that they have utterly neglected to make any inquiry, from the many hundreds of persons perfectly ready and able to give them the information. There is no shadow of foundation in truth for this scandalous story; and I wonder how any one, not overwhelmed with prejudice, should give credit to any thing so absurd. If, at the appointed hour there must always be; there is, I believe, in every school, and there is in ours,—any child is forbidden by his parents to attend, what is the consequence, do you think? That all instruction is at a stand? “No;” you would say, “the child withdraws.” The child, whose parents disapprove of that particular religious instruction, whatever it may be, that commences at a fixed hour, say from two to three, is by them withdrawn; but it would be absurd and ridiculous to have the whole school thereby excluded from that religious instruction. Why, any person who may object to what I am now saying, would not, thereby, be able to prevent all who are present from giving their attention. He would only have to withdraw himself. No one needs to stay, if he does not like it. But I am happy in being able to add, that, although the parents of many of the children have objected to send them to schools where religious instruction has been forced upon them, the children of all denominations have, in a vast number of instances, remained when it was least optional, because they saw that no fraud nor force was intended against them.

And you may be sure that that is the only way in which any people, and more especially the Irish, can be enlightened. You may reason and expostulate with the parents; but never attempt to kidnap their children, and to make proselytes of them. That is not a fair mode of procedure. But offer them that which is good, and in most cases you will find, if it is offered in a spirit of frankness and conciliation, it will be willingly accepted.

I ought to apologise for having detained you thus long in what may be considered a digression from the matter in hand; but I felt assured that the sympathy which I felt towards this place and Institution must be, in some degree, responded to; and that you would feel the same sympathy with the wants, and with the efforts to relieve them, of the poor Irish, as I do with your efforts and success.

With respect to the Institution that is now occupying our principal attention, of course you cannot need any instruction or suggestion from me, because you have experience to guide you. It is not an Institution formed for, or calculated to give, a complete education; but it does seem to me, from all the reflection I have been able to bestow upon it, and from all the inquiries I have made, to be best adapted for the wants and circumstances of a busy, and populous, and thriving place like this. It is only a small portion of time—that portion which comes under the denomination of leisure—that the young persons in this place, or the elder ones either, can devote to the cultivation of their minds. That portion, however, may be very profitably

employed; and if it were employed merely in innocent amusements, if there were no enlargement of the faculties, no improvement of the character, if there were no elevation of the man in the scale of social life, I should say that, being merely innocent, it would be a great recommendation; for we know too well that the leisure hours of those who are occupied for the greater part of the day, are likely to be devoted to any thing but innocent relaxation. But I believe that the lectures, together with the library, of this Athenæum, are as well adapted to meet the wants of relaxation and mental improvement as any thing could be in such a place as this. Lectures alone give but an imperfect and crude sort of notions to those who have not access to books. Books, again, are a sort of spacious sea, on which an unpractised student, without any tutor to direct him, might be apt to be lost. But lectures excite the desire to read, and point directly to the way in which the best course of reading can be taken. The books will supply the want which the lectures will have created. The lecturer will not have taught his pupils all that they feel desirous to know; but he will have taught them how to seek for knowledge, and where to find it. And I consider that this Athenæum is analogous to those great engines of your industry, which excite the wonder of all strangers, and which bring wealth from all parts of the earth. A workman at the power-loom, or at the spinning-jenny, will accomplish a great deal with very little labour. A single individul, who used merely his own books, would require a large library to educate him-

self tolerably; and he would require the care of a tutor, or an instructor of some kind, to guide him. But you have got machinery by which thousands and thousands of spindles can be turned at once. You have got machinery by which one person can perform the work of tens of thousands; and you can thereby produce a quantity of the best commodities at a small expense and with the greatest ease. The Athenæum is analogous in character to that machinery. One library and one lecturer will serve at the same time to instruct hundreds and thousands of persons, almost as well as if each one had a library and tutor to himself. For this reason, it is an Institution particularly suitable for a large, populous, wealthy, and thriving place like this. Let not the cultivation of your minds be in such a state as that you shall be put to shame by the wonderful machines you have constructed for the spinning of cotton and of various manufactured goods. Continue in this course, and may the blessing of Providence further your endeavours! Continue to work this great and mighty engine, and whatever dangers you may have to encounter, by care and vigilance you will surmount them, and the benefit will be incalculable. For my part, I come from a city far less wealthy than yours; but I shall keep in mind, most tenaciously, all that I have seen and learned here; and shall apply, as far as I am able, all the principles and the practical maxims I have learned, towards the accomplishment of an object which, for years, I have had in view—the extension of the benefits of an improved education.

beyond the labouring classes of Ireland, to whom my attention has hitherto been confined—namely, to the middle classes of that country, that they may not be surprised and overgrown by those who are their inferiors in situation.

FROM "THE MANCHESTER ATHENÆUM ALMANAC,"
FOR 1847.

The following very able and excellent Letter, by his Grace the ARCHBISHOP OF DUBLIN, has been communicated to the Directors of the Athenæum since this publication was in the press, and will no doubt be read with that interest which every thing emanating from so distinguished an authority is entitled to command.

* * *

I certainly do, as you observe, consider as a great good such Institutions as the Manchester Athenæum and the Edinburgh Philosophical Institution,—as likely to make the difference, to a large and important portion of my countrymen, of intellectual cultivation and civilization, instead of gross and narrow-minded semi-barbarism.

In every large town there must be hundreds, often thousands of persons, most of them young men, who have had but a scanty education previously to their being occupied in business, and who, having a few leisure hours in the evenings, wish to devote them to the improvement of their minds. Those hours, if not so occupied, would probably be spent, in many instances, in dissipation and vice; at best, would be

wasted. It is but little, and that with great difficulty, that a man, not in affluent circumstances, can do towards his own improvement, when acting quite alone, with few books, and no one to guide or even sympathise with his studies.

Now, in these Institutions, at the cost of about sixpence per week, a man gains access to a large library, and to lectures on various subjects of literature and science. Some persons are thus enabled to seek such knowledge as may advance them in their respective branches of business; others, such as may enlarge their minds, and guard them against that professional narrowness of mind which I have treated of in the lecture before the Dublin Law Institute, which is reprinted in the last edition of the "Rhetoric." After all, it may be said that it is far from a perfect education that is thus obtained. And this might be an objection, if it were proposed to *substitute* it for a *better*—to make an Athenæum take the place of a good school or university; but considering that what it is substituted for is—nothing, or worse than nothing, such an objection is quite irrelevant. Yet these, and all other Institutions for the diffusion of knowledge, are fiercely opposed by a very considerable party, who lavish alternately abuse and derision on all who promote or favour them.

I. There are some who, I have no doubt, are sincere believers in the *utility* of our religion, as serving to keep the vulgar in order, but have little or no belief in its *truth*. These, of course, can be no friends to knowledge, thought, mental exercise—which they

regard as highly dangerous to men's faith; and yet they cannot avow this feeling *openly*, which would be to reveal the very secret they are anxious to conceal.

II. Nearly the same will be the sentiments, on this point, of those who do believe in Christianity, but whose faith is founded, as the TRACTITES express it, not on evidence, but on—Faith!—that is, who believe because they are resolved to believe, and think it both unsafe and irreverent to seek a reason. The coincidence, practically, of these with the former, is exhibited in the parallel columns which I have printed in the appendix to the last edition of the “Logic.”

III. Some, again, there are, of the higher classes, (in birth and station,) who are jealous of the classes below them treading on their heels, by becoming their equals or superiors in the literature and science, of which they themselves, perhaps, possess no great share. This, again, is a feeling which no one is very likely to *avow*. They persuade, as far as they can, both others and themselves, that what they dread is the unwise, ill-regulated, and indiscriminate diffusion of knowledge.

IV. Some well-meaning but illogical minds see the dangers, (which are real,) attendant on knowledge, and give themselves credit, (as is often the case in other matters also,) for seeing clearer than the generality, from being one-eyed,—from seeing Scylla and not Charybdis; and they do not perceive the consequences to which their principles lead. To cut off every thing liable to abuse and misapplication, would

lead us back, step by step, to the condition of savages; and when we arrived at that, we should find a greater abuse of GOD's gifts than in any other form of society. A savage has less power for evil, *absolutely*, but more *relatively*, than a civilized man. In the art of war, for instance, they are inferior to civilized men; but they know enough of it to cause ten times more slaughter, in proportion, among one another, than occurs in the most bloody wars of civilized men; and though they have little property, and no refined luxury, they are usually more rapacious and more sensual than the civilized. (See pp. 167 and 216 of the "Political Economy.") A highly civilized man or people *may* be very bad; but they may be virtuous men and good Christians. A savage cannot.

All these objectors are afraid or ashamed, as I have said, of *openly* decrying the spread of knowledge; and therefore resort to the stale, but often successful artifice described by Bacon in his Essay on Cunning, of pretending to favour the measure they dislike, and "moving it in such sort as to hinder it." They are friends, forsooth, to the advancement and diffusion of knowledge, only it is to be clogged with an *impossible condition*. Let but all professors of Chemistry, Geometry, Languages, &c., be men of approved orthodoxy,—let them be placed under the control of orthodox clergymen,—let a few millions be granted by Parliament for the support of these clergy,—let all Dissenters become Conformists, and place themselves under those clergy; and then advance knowledge as much as you please. This is like the man who

offered to drink up the sea if you would but first stop all the rivers that run into it.

In the meantime, let all Institutions for the diffusion of knowledge be opposed and decried. And what is the result in a country like ours? Why, instead of confining, (which would be a very good thing if it could be done,) the advantages of education to the *best* men; the system, as far as it succeeds, goes to confine it to the *worst*. Instead of securing, that all lecturers should be friends to religion and morality, it tends to secure their being *enemies*. Just as the persecutors of Galileo, if they had so far carried their point as that no Christian had been an astronomer, would have found, of course, that no astronomer was a Christian; and would doubtless have pleaded *that* as a justification of their opposition. If you can successfully spread the report that such and such a street is inhabited by no respectable people, the description will soon become a true one.

The obviously wise course is, for good and pious men to take a part, and thus to give an influence in Institutions which are likely to flourish, and which are not bad in themselves, but are exposed to dangers.

The people learn to read. They may read bad books; though none probably worse than what they would *hear* from their boon-companions. But there is this difference; that we *can* gain access to their *studies*, though not to their *conversation*. Let us then write good books suited to their tastes and capacities. You then can encounter the evil on equal terms. Perhaps you had rather not be on *equal* terms. You

would rather be able to *exclude* all that is bad. But that is not allowed us. And surely it is better to encounter an enemy on equal terms than to have him undisputed master of the field.

But there is no provision for religious instruction combined with scientific or literary. It is true there is not, nor evidently can be, until all men are agreed in religion. But the churches are open, and religious instructors are provided. But suppose they will not go to church? Why, we must leave them to their choice. We have neither the right nor the power to force them; nor can we preclude from obtaining secular knowledge, those who have neglected what is more important. But we can avoid doing that which is the most likely of all things to give an irreligious character to such Institutions; which is, the opposition or neglect manifested by religious men.

But whoever endeavours to encourage, and thus to influence for good, any such Institutions, must prepare himself for being most fiercely assailed by persons of all those classes I have enumerated. He will be regarded with that dread which always adds new bitterness to hatred; and the circumstance of the assailants not daring to avow fully their real objections, will naturally make them resort to the foulest slander and misrepresentation, to the grossest abuse, and the most scurrilous derision. Never, in the lowest radical publications, does one see more fierce malignity than in those newspapers and magazines which are written for the class who call themselves the aristocracy—more properly the oligarchy—in all

the articles, prose or verse, which are directed against National Schools, Mechanics' Institutions, Athenæums, &c. ; and all supporters of what tends to the diffusion of knowledge among the mass of the people.

It is remarkable that the dread of this seems to have been increased in such persons as I have been speaking of, by the events of the French Revolution ; though that might have shown to any one who was not *proof-proof*, that the greatest of all the evils of knowledge and mental cultivation takes place where a very few, possessing these, are able to make tools of a vast mass of totally ignorant men, and become powerful demagogues.

The prodigious amount of ignorance of the mass of the French nation, under the old regime, than which nothing can be more easily and fully ascertained, is apt to be completely overlooked.

“Bray a fool with a pestle among the wheat in a mortar, and his folly will not depart from him.”

LECTURE

DELIVERED AT THE OPENING OF

THE SHEFFIELD ATHENÆUM,

ON THE 5TH MAY, 1847,

BY CHARLES KNIGHT, ESQ.

MR. PRESIDENT, Ladies and Gentlemen,—There is a single line written by the great leader of the illustrious band of English poets, Chaucer, which forces itself upon my mind in connection with this ancient seat of manufacturing skill:—

“A Sheffield whittle bear he in his hose.”

The “proud and gay” Miller of Trumpington wore a Sheffield knife. It may sound trite, if not somewhat presumptuous, to this audience, if I say that a whittle must be made of steel; that the iron of your pits could not be converted into a knife by any rough process of the hammer and the anvil, till science, empirical perhaps, but still science, had changed its nature by a nice admixture of carbon. Here, then, in the very place where I have the honour to address you, was science at work four hundred and fifty years ago, according to this most indisputable record. The

rude smithy then stood upon the bank of some one of the beautiful rills that come down from your mountains; and the brawny artizan plunged his hissing whittle and his arrow head into the cold stream to give them "the ice-brook's temper." Scattered over the surface, where there is now gathered together a very large population, would be the wooden houses constituting a small hamlet, amidst which stood the church, the one instructor,—over which frowned the castle, the one protector as well as the one tyrant. Of those days you have no visible memorials; but the old scenes are brought back by the old names. Your Pea-croft, your Balm-green, your Bower-spring, your Daisy-walk, have now other images than those of village quiet. Did peace always dwell amidst these "chang'd scenes—once rural?"

—No.

"Vassal robbers prowld,
And, tiger-like, skulk'd robber lords for prey,
Where now groan wheelworn streets, and labour bends
O'er thousand anvils."—ELLIOTT.

There were great changes between the first days of the Sheffield whittle, and the establishment of your Cutlers' Corporation in 1624. The power of the strong hand had been compelled to retreat before the power of peaceful industry. There were greater changes between the first charter of the Cutlers' Corporation and the erection of the first steam engine grinding-wheel in 1786. There have been even greater changes between the days when the stroke of the first steam-moved tilting hammer was heard in these

streets, and the very last year in which we have lived, when the great barrier to the exchange of your cutlery and your plate with the natural productions of the New World was broken down by that irresistible force of public opinion, which went forth in a potent voice of song from this town—a mournful and threatening song—before political economy had built her free-trade halls. There will be a greater change still,—and, with an undoubting confidence in the guidance of the Omnipotent Ruler who has willed that all true knowledge shall be for good, we may believe that such changes will tend towards general happiness—there will be greater changes still which many even of the present generation will witness,—from this hour when you have assembled yourselves to establish a large and wide-embracing association which has for its chief object the elevation of the mind. I venture to speak thus confidently, because I know that such institutions peculiarly belong to our immediate times—they belong to the youth of our land,—and they have the vigour of youth. At every step of the social changes in your own locality that I have thus most imperfectly ventured to point out, the great motive power of the change has been the advance of knowledge. We are all moving onward under the guidance of the same power, but perhaps to somewhat different ends than those that we have yet been able to reach amidst the struggles of centuries,—travelling wearily through barren wilds, or by different roads, with some natural impediment to be constantly broken down, and with a lion in every path that we have cleared. As regards

the wondrous revolutions that science may accomplish, we, who have lived in the days of the locomotive engine and the electric telegraph, can scarcely venture to think that there will be a resting-time when science shall cease to work new wonders. But we are yet in the infancy of social improvements; we are still surrounded with old prejudices and old forms of partizanship, that too often mark the weakness as well as the strength of the national mind. But upon the neutral ground which we now tread in this Athenæum, and in institutions such as this Athenæum, where *our young men* will receive some of the best parts of their adult education, may be most fitly cherished those large aspirations for the universal progress of the community, which will in a few years break down the principle of class and party exclusiveness, without destroying one atom of the freedom of individual thought. It is here, with the aid of higher teaching we may come to know that while there is still an enemy at our gates,—the fearful band of ignorance, poverty, and crime,—christian charity and lettered intelligence ought to be up and doing their work,—the great work to which they are especially called to labour in these days,—that of winning those who are without guides and friends to come amongst us, whose lot has been cast in pleasanter places, and seek with us the great end of all spiritual and lay instruction,—the nurture of the understanding, through which the mortal may rightly do his task on earth,—the elevation of the reason, through which the immortal may be fitted for higher destinies.

We have seen that Sheffield had its science more than four centuries ago. In that day there could be no literature for all. The great lord who gave Sheffield a charter, at the beginning of the fourteenth century, was himself perhaps unable to read. But, nevertheless, we are quite certain that in those unlettered times, there was here the germ of an intelligent population. The scientific arts of the fourteenth century were wholly empirical. They have been wedded to philosophy in the nineteenth century. But there was a long period of "darkness visible," when the most skilful workman groped his way to excellence, and, by the force of tradition and his native energy, preserved the seat of a staple manufacture. It has been so here; it has been so in many other places. In 1822 Sheffield established her Literary and Philosophical Society. The chemical discoveries of Black, and Priestly, and Davy, the mechanical combinations of Arkwright and Watt, might thenceforward become familiar to the higher grades of your population. I grieve to find it recorded that such an Institution had been somewhat neglected. It was a necessary consequence that the age of scientific discovery, developing an unequalled manufacturing industry, should also be an age in which it was thought essential that the workman himself should know something of the principles upon which he laboured. In 1832, Sheffield established her Mechanics' Institute. From that time, in combination with cheap books of science, (which were accessible through your previously established "Mechanics'

Library") the intelligent artizan might, at a small cost, learn the great elementary theories of the arts amidst which he wrought, and be qualified to go forward as a teacher of others, an overseer, an employer, to act for himself in cases of emergency, to supply expedients in situations of difficulty; and what is better than all, to enlarge the sphere of his observation, to become a thinking being instead of a mere machine. No other town of our own country, unquestionably no other country, has ever rivalled this town in the excellence of its first product and its last—its great article of cutlery. Up to the hour when the bar of blistered steel is drawn from the furnace, to the hour when the penknife receives its final polish, science, chemical and mechanical, has been presiding over the almost countless changes of the form and quality of that bar. Some of the laws of that transition are still mysterious; philosophy cannot explain all things, or regulate all things, but within its own province it never neglects its own work. But has taste equally presided over those stages of the operation in which form and ornament are demanded? I turn to a very curious engraving of a pair of knives,—of ladies' knives, such as were worn as an article of dress in the sixteenth century. They bear the date on their handles of 1610.* Now, really, during the two hundred and thirty-seven years since these weapons, or ornaments, were fabricated, it appears to me that no great advance, if any, has been made in

* The engraving, with a description, is given in the 15th volume of the "Transactions of the Society of Antiquaries."

the taste of the design which we find on these "wedding knives," as they were called. Perhaps they were not of English manufacture, some will say. That is precisely the point to which I am coming. Why should not English manufactures be as much distinguished for taste as for the excellence of the material and the finish of the workmanship? Why should not the handle of a knife be decorated with as much regard to the principle of beauty, without the mere gaudiness of expensive ornament, as the diamond-studded hilt of a Sultan's scimeter? Why should not a plated urn, or a Britannia metal tea-pot, have as much beauty of form as the vase that came from the workshop of a Benvenuto Cellini? We are reproached by the French—a recent writer, Monsieur Faucher, applies the reproach to Birmingham—that we can only do tolerably well in the matter of taste when the French give us patterns. In 1843 your School of Design was established. May we not hope that the familiarity which your young men may thus acquire with the universally applicable principles of proportion and of grace, may raise even the commercial character of your products! Nobly has it been said by the accomplished master of your School of Design, "I hope to live to see the time when the manufacturers of England will be one of the agencies for diffusing a pure taste throughout the whole world." At any rate, the study of the broad principles of art will raise the taste and the intellectual character of the students themselves. I venture to say it will raise their moral character. There is a

beautiful link between what is naturally and intrinsically elegant and what is virtuous. Low thoughts do not very readily come into the mind that is keenly, and, in a proper sense, critically alive to a perception of what constitutes a work of art.

It is a curious fact that the first steam engine grinding-wheel and the first newspaper were established in this town in the same year, 1786. It would seem as if the great instrument of the development of thought came to regulate the movements of mechanical power. And thus it ever should be. The newspaper is a great instrument. It carries men beyond the influence of local and temporary concerns, to identify them with the interests of their town, their county, their country, the universal earth. Who can sum up the amount of good that an honest, tolerant, and benevolent local newspaper may accomplish within its immediate range, when we look back and recollect what mind presided over one of *your* newspapers for more than thirty years? Who can calculate the benefits that have been shed upon a past generation, and upon this generation, by your adopted son—James Montgomery—who, when he retired from that life of labour which, begun in party persecution, ended in one unanimous tribute of homage to the writer and the man, said—"I wrote neither to suit the manners, the taste, nor the temper of the age, but I appealed to universal principles, to imperishable affections, to primary elements of our common nature, found wherever man is found in civilized society, wherever his mind has been raised above barbarian

ignorance, or his passions purified from brutal selfishness." Such was James Montgomery. Such, with the example of the editor of the *Sheffield Iris* before them, have been many newspaper writers, provincial and metropolitan, from his day. It is the especial praise of our times, and it is a praise which the people, the great body of the people, have earned, that what is evil in newspaper literature—in periodical literature generally—has been swallowed up by what is good. There is, no doubt, many a low ribald who still browses upon the dreary waste of popular ignorance. Leave we the stunted herd to the rank and sour grass which starves while it fills. But we have lived to see the reverse of Pharaoh's dream—the "ill-favoured and lean-fleshed kine" of our current literature have *not* eaten up the "well-favoured and fat kine."

I have made especial mention of newspapers, because the reading of newspapers will be a large object of the frequenters of this Institution. I learn that the Sheffield Athenæum will comprise a Reading and News Room, a Library, a Lecture Hall, a Class Room, a Coffee Room, and a Gymnasium. I learn also that it is contemplated to connect with this Institution a Cricket and Archery Club. The intelligence of the day; the literature of all time; the scientific discourse, with apt illustrations by drawings and instruments; the teaching, in classes, of languages and accomplishments; the cheap and temperate refreshment; the athletic exercise, with an honourable remembrance of our old English sports, that made us

manly and kept us cheerful—these are the objects which the directors of this Institution propose for the union of the young men of Sheffield. They are all worthy as well as attractive objects. Of sports and recreations who will speak disparagingly when it is known what they do, under proper regulation, for the building up of the healthful mind in the healthful body? Our real development, physical and intellectual, must always be a pleasurable thing, and be surrounded with pleasurable associations. Knowledge never puts on a severe face to her real votaries. But why do I dwell especially on knowledge? With coffee rooms and gymnasia, with music and chess, with archery and cricket, it will be said that few will come to this Athenæum for the purposes of study. I have heard the same said of other Institutions that did not even hold out the attractions of innocent recreation. I believe that such opinions are founded upon a very imperfect conception of the deep anxiety that is felt by the hard-working, intelligent young man, to make a daily addition to his stores of knowledge. It is an easy thing for those who live but to be amused; to whom books present themselves under no other aspect but that of amusement; who are satisfied with the original benefits of that imperfect instruction called a public education; who pick up sufficient knowledge for the hour from the gossip of their clubs and the opinions of their favourite Reviews,—it may be an easy thing for them to deride the efforts of the hard-handed son of toil, to enable himself to fathom the depths, or sympathize with the

beauties of the immortal bequests of the departed great. Let me tell such, and let me say it here as a word of encouragement to all, that for a few years I enjoyed the conversation of a very extraordinary man—rich in all scientific knowledge—inquiring in all subjects of mental philosophy—honoured not by high titles, but by universal respect—who once worked at the forge in this very town. That man—always full of the most ingenious mechanical contrivances, which he more particularly applied, in connection with his higher science, to the great objects of warming and ventilating our dwellings and our public buildings—invented, when he was a workman here, little machines to facilitate his handicraft labour, that he might have a greater share of leisure—not a higher amount of wages—but time to spare for the purpose of a more intense devotion to the studies which eventually made him what he was. That man was one of your Hallamshire worthies—Charles Sylvester.

I have no doubt that your town—that every manufacturing town, is rich in such examples. It is good for you—it is good for us all—that there should be such leaders in your ranks. Sheffield may be emphatically called the town of skilled labour—the “town of the unbowed poor”—the town where man meets man as his equal. I rejoice that it is so. I wish all men could come to see the real dignity of all labour. But let not labour fancy that it is all-sufficient; let not even skilled labour, “with its well-paid Saturday,” look down with mere compassion upon the toil-worn, ill-fed agricultural labourer

of the South. Leave the highest technical skill to its own influences, separate it from what is universal, and it is a very narrow thing. Look at your file-cutter. There is nothing in the whole compass of manipulation equal to the precision with which an experienced workman can cut a hundred notches, with the utmost rapidity, in an inch of iron, at a particular angle, with an exact depth and shape, of a perfect parallelism, and of a microscopic equi-distance, without the slightest guide but the unerring facility of his hand. But let him have no thought beyond his file-cutting, and what is he? He is not half a man. Reverse the picture, and what is there that he might not be, within the reasonable compass of a working man's ambition, if he would surrender his mind to the genial influences of the more extended world which lies within his reach, though it may be out of the ken of his uninstructed vision. His case is the case of all, be they where they may, let their occupation be of the lowest or the highest, be it the botcher of shoes or the perplexer of juries, if they surrender themselves wholly and exclusively to walk in the petty circle of their professional ideas. There are few men in these days, however humble be their lot, who have not the power to go beyond this narrow circle. For yourselves, it appears to me that you are singularly favoured, by your localities and your local associations; your commercial habits and the ingenuity that belongs to your manufactures; your connection, through illustrious townsmen—(it is a proud distinction)—with the Fine Arts and the

Literature of your country. Let me briefly dwell upon these, your peculiar advantages.

It is a real good—it is to some minds a compensation for the absence of many common blessings—to live surrounded by fine natural scenery. I have heard that there is not a street in Sheffield from which you may not get some prospect of the country. The distant hills and streams are here for ever wooing the busy man to come amongst them, and receive their peace into his heart. One who was keenly alive to those influences—Ebenezer Rhodes—the topographer of Yorkshire and Derbyshire, tells us, in allusion to Rome's boast of its seven hills, that Sheffield has seventy times seven, with woods, and verdant slopes, and sparkling streams innumerable. It was in these scenes that the genius of Chantrey was formed. His characteristic excellence was the union of refined taste with strong judgment. His sketches of these his native localities were as true, and at the same time as tasteful as his statues and his busts. It was his happy art to catch the essential spirit of every thing that he portrayed. He saw what were its real elements. Think ye not that the mind of the milk-boy who raised himself to equal companionship with the greatest in rank and intellect, and who, making his fortune by art, left the most splendid benefactions for the support of art of any man in any time—think ye not that the mind of Francis Chantrey grew the more luxuriantly amidst the beauties of this his early home?

“ When, calmly seated on his pannier'd ass,
Where travellers hear the steel hiss as they pass,
A milk-boy, sheltering from the transient storm,
Chalk'd, on the grinders' wall, an infant's form;
Young CHANTREY smiled.”

The milk-boy here became a mechanic—a carver. Sheffield nourished him into an artist. He drew his ideal from your scenery—his unerring tact from your practical good sense.

Men of Sheffield!—You are great travellers. Your fathers were travellers in the days when they carried their wares upon pack-horses to city and to port. You now cross the Atlantic with greater facility than those who went before you voyaged from Hull to London. You see much of manners differing widely from your own. Your minds are expanded by this familiarity with the outward world. The knowledge which you thus acquire by observation descends imperceptibly from your own fire-sides to your workshops and your counting-houses. But to make the results of personal experience truly fructify, your minds must be expanded in the still more universal world of the best literature. That is a wide region to travel over; but there are few abiding places of that region that are not pleasant and profitable. What intelligent conversation and rational curiosity impart to the mercantile traveller, literature imparts to the commercial man at home. That general knowledge which “must grow up side by side with the coarse plants of daily necessity, and must depend for its culture, not on the exclusive devotion of time and wealth, but in hours and seasons

snatched from the pursuits of worldly interests"—that is a wholesome knowledge—a thing especially to be cherished in a community large enough to be separated from provincial narrowness, but linked together enough to cultivate the feelings of good neighbourhood. We, of the capital, are more isolated than you are. You are bound all together by the strong ties of common interests, common habits, and common sympathies. Let this Institution be a new link of brotherhood. You have all a common end in view—the perfection of your productions in that combination of excellence and cheapness which defies a world's competition. The ingenuity, the taste of the poor apprentice who, putting his heart into his trade is working for the equal good of artisan and capitalist, needs some encouragement, not in the shape of patronizing pence, but in the nobler stimulus of the cultivation of his mind, and the recreation of his leisure. This Institution may be necessarily limited in its numbers, and in the classes that compose it. But rest not till the benefits which some will here enjoy, are extended to all who have a desire to emerge from the slough of demoralizing habits, and of ignorance which is dangerous to themselves and to others. You are a community in which the prayer of Agur is happily realized amongst a very large number: "Give me neither poverty nor riches." You are a community, therefore, in which there ought to be no jealousies between one class and another class. A time will assuredly come when all social interests will be better understood than they are at present. The time *has* come when the higher and the middle classes can

no longer be reproached with looking on, with callous indifference, as the physical and moral wants of multitudes are laid bare before them. There has sprung up amongst us, God be praised, a general desire to better the condition of those to whom "the primal curse" is *not* "softened into mercy"—those whose labour is *not* the price "of cheerful days and nights without a groan." In the transition state, from the dependence of many upon one, the relic of feudality—to the state in which the commercial spirit loosened the ties of individual authority and protection—there was necessarily much suffering—there still is much to be corrected. But the commercial spirit has the power within itself of healing the wounds which have attended its yet imperfect developments. It has begun to do its duty. It sees its real interests. Half of the evils, physical and moral, of the labourer and the artisan are produced by the imperfect arrangements of our semi-civilization. Filthy hovels, ill-drained streets, an utter deficiency of the commonest means of household comfort—these are manifest evils to conquer by remedial measures which belong to our times. I learn from a work, as admirable in its plan as in its execution—the "Vital Statistics of Sheffield," written by your learned and benevolent president, that such evils which, in some large towns, are overwhelming, do not in this town present insuperable obstacles to the diffusion of health and comfort. There are some evils to be remedied of this character; but there are not such evils here as constitute the opprobrium of cities where pestilence is ever ready to decimate a cellar-dwelling

population. Here every family has its house; here, the average of the inhabitants of one house is not more than five. But there is, nevertheless, here, a high mortality. Many of your manufactures are destructive of life; the remedies which science has suggested are yet imperfect—but even those remedies are neglected in too many cases by the sufferers themselves—I trust by none of those from whom the sufferings of those around them ought to demand a never-ceasing desire for the removal of the causes of suffering. Those physical causes are aggravated tenfold by moral neglects. Improvidence and dissipation make the grinding-wheel fatal, which, without them, would be only partially dangerous. There is no remedy for such evils, but an earnest determination, in the words of deep significance, “to do good, and to communicate.” There are examples before us of what may be done by individual zeal and well-directed association. The dark mine has been penetrated, to rescue the woman and the child from its dreary labours. The factory has witnessed the blessed union of moderate youthful toil and wholesome instruction. The shopkeeper is fast finding out that his profits are not increased by late hours of closing, and that the good conduct of his assistants may be absolutely promoted by the hours that are taken from unnecessary drudgery, to be bestowed upon mental improvement. Who can deny that these advantages belong to the age—which desires that every child should be educated, whatever difference there may be as to the manner of education—which has purified our criminal laws from their old reproach of capricious

cruelty—which has come to regard the criminal himself as an unhappy being, whose distempered state ought to be submitted to a remedial process, wherever the hope of cure is not utterly gone. Sheffield, as I have said, appears to me in a position to carry out these imperfect beginnings of a happier state of society than we have yet witnessed. The spread of intelligence which gives its impulse to this social progress must, I would fain believe, have few insurmountable obstacles to arrest its course in this thriving community. Let your institutions for the communication of knowledge have fair play, and if the heart-burnings and jealousies which really belong to interests ill understood on all sides do not speedily vanish, assuredly the echoes of violence—partial, and isolated, and rare, no doubt, but still violence—will never again make the stranger ask, is this England? The growth of intelligence is fast obliterating the rule of terror.

“Great men have been amongst us,” says the patriarch of the Lakes. “Great men have been amongst *you* ; and it is your happiness that some of them are still amongst you. There abide here memories of science, of literature, of the arts, which we all cherish, but which you must especially cherish. There are few towns of England that can boast of two such poets as still dwell in or near Sheffield, and who have drawn their inspiration from the scenes which their descriptions have rendered dearer to you. It is not an uncommon thing for local reputations to have no national recognition. It is not so with your James Montgomery and your Ebenezer Elliott. Of the productions of the

one it has been said—and said by a real poet himself, John Wilson, they are “Embalmed in sincerity, and therefore shall not pass away; neither shall they moulder—not even although exposed to the air, and blow the air ever so rudely, through time’s mutations.” The same genial critic has spoken as emphatically of the other: “The poor might well be proud, did they know it, that they have such a poet. Not a few of them know it now; but many will know it in future; for a muse of fire like his will yet send its illumination into dark, deep holds.” Let me not pass over him who has won an enduring fame in another walk—he who has dealt in the spirit of the antique times of philosophical thought, with the great subjects of the “Formation of Opinions”—with “Truth, Knowledge, Evidence, and Expectation”—your own Samuel Bailey. I am not here to seek a spurious sympathy when I repeat the just praises of your fellow townsmen. I say these things, because I feel that with such fellow townsmen there is more than a common incentive to the people of Sheffield to cultivate the highest literature. There are some, no doubt, amongst those whom I have the honour of addressing, who have been familiar long ago with the poetry and the philosophy that has sprung up, and flourished in their own soil, and who, in advancing years, derive new pleasures from their recollection. Those things which were the delight of our jocund days, steal in upon the sober consolations of our waning time—bright images, tender echoes. Memory dwells upon the scenes in which childhood was nourished, and youth walked fearlessly; but it

especially dwells upon the enduring productions of mind which were treasured up when our fancies were vivid, and our hopes ardent. Is not this a reason, if any were needed, for asking the young man to familiarize himself with the highest and the purest things that belong to the imagination, to store up the soundest things that are to be imparted by history and philosophy ; to seek the companionship, in a word, of the best books.

One of the great characteristics of our age is, the disposition to secure large individual advantages through the principle of association. You are associated in this Athenæum to obtain many advantages which would be too costly for individual purchase, and which would be imperfectly enjoyed without the union of others. In every part of our land such associations are springing up, or are being perfected. I am sure that I do not mistake the convictions of my own experience when I express my belief, that the exertions for the diffusion of knowledge which the last quarter of a century has witnessed, have been rewarded by the most abundant success. Undoubtedly, there is a great deal to be done before a very moderate amount of knowledge shall be the common property of all our country's sons and daughters. But we are in the right path. I can trace the growing influence of the general desire for information in the tone of our literature in general, and of our periodical literature especially. Now and then I have still to laugh over a sneer at penny knowledge, from some superfine review ; but the spread of cheap books,

which are not rendered cheap by their inferiority, have worked a revolution—not only an increase not to be numbered in the total aggregate of readers—but a total change in the character of all books that seek popularity. There is something now to be found in most books that breathes of freedom of opinion, in the best sense of the term. Men who think are not afraid to speak their thoughts. The servile prostitution of the fashion-worshippers is almost gone. The palmy days of ridicule for the humble are with the days before the flood. There is a larger audience to be addressed, who will not trouble themselves to understand the conventional languages of coteries and little knots of self-lauding critics. Truth—broad universal truth, is now professed at least to be sought for. It has been said that mediocrity will be the result of the vast extension of the reading public. I venture to think that the mediocrity of a century ago was the result of the confined space in which the then reading public moved, when “the age of patronage had passed away, and the age of general curiosity and intelligence had not yet arrived.” The mixed audiences for whom Shakspeare dramatized and Jeremy Taylor preached, were not far different from the great mass of readers of our own times; perhaps they were not even so far advanced in book knowledge as we are. But their knowledge was a fresh and vital principle. The literature which the man of little leisure most relishes is not a pampered conventional thing, with its feeble banter, its allusions for the initiated, and its

airs of underbred gentility. No. The literature for the greatest number must be something universal—something that finds its way to the unsophisticated understanding—that is healthful and fragrant as the bracing air of the mountain side. There is yet much to be done before what is of our current productions of the press shall aspire to the high distinction of being mental food for all. One, and perhaps one alone, amongst us has attained this distinction—William Wordsworth. Thirty years ago, when the conventional critics were in the full swing of their usurped authority, that worthiest successor of him

“ Whose soul was like a star, and dwelt apart,”

had his share of that neglect which then attended every great effort of originality. Who is now, essentially, the poet of the people?

Thus, then, I have presumed to throw together a few of the thoughts which sometimes crowd upon me when Institutions such as this—for the advancement of knowledge—for the mutual elevation of all classes of the industrious—present themselves to my view. You have conferred upon me a signal honour by thus selecting me to address you upon the first public occasion connected with the opening of the Sheffield Athenæum. My grateful sense of your unmerited kindness may best be conveyed by my expression, however feeble, of the ardent wishes I entertain for the rapid and certain progress of your society. To you assembled here—to all the friends of primary education—to all the diffusers of knowledge—to the

ministers of religion—to those who begin the good work in the school where infancy is taught to lisp a prayer, and carry it onward to the elevation of youth in associations like this hopeful Sheffield Athenæum—to all and each I say, in the words of your own time-honoured bard—

“ Sow in the morn thy seed,
At eve hold not thy hand;
To doubt and fear give thou no heed,
Broadcast it o'er the land.”

ADDRESS

DELIVERED TO THE MEMBERS OF

THE MANCHESTER ATHENÆUM,

ON THE 18TH NOVEMBER, 1847,

BY ARCHIBALD ALISON, ESQ., F.R.S.,

SHERIFF OF LANARSHIRE.

LADIES AND GENTLEMEN,—When I look around me on this magnificent assembly—when I recollect that it is, as it were, the heart and soul of Manchester itself, the centre of the commercial greatness of England—when I call to mind the splendid eloquence with which you have been addressed from this place, I know not whether feelings of pride or humility should be uppermost in my bosom ;—of pride, that your directors have deemed me worthy to succeed the many eminent men who have already filled this chair—of humility, that I should be in most respects so unworthy to occupy their place. When I reflect on the graphic powers and touching pathos which have made the works of Dickens known wherever the English language is spoken throughout the earth ; when I recollect the brilliant eloquence and caustic energy which have rendered Disraeli the object of admiration, alike in the senate and the nation ; when I call to mind the flashes

of genius which glance, like reflected sunbeams, from the impetuous stream of Sergeant Talfourd's eloquence, and the graceful oratory and generous sentiments which, more even than his high descent, add lustre to the name of Morpeth,—I feel at once what a distinction is conferred, and what a responsibility is imposed, by the chair in which their too flattering kindness has now placed me. Among the many reasons for admiring the choice which the directors have made of my predecessors, it is not the least that it evinces so marked a superiority to all the distinctions of opinion and party; demonstrating that you regard literature in its noblest aspect, that of a great republic, the members of which should have only one object—the discovery of truth; who should feel no rivalry but the rivalry of doing good; and no enmity, but against the enemies of humanity. In one respect only I feel that I have some title to occupy this place—in one particular only I may perhaps be of service to some of those who hear me. Though known to you chiefly, if not entirely, by my writings, I am not in reality a literary man. Literature has been the delight, but it has not been the occupation of my life; and the works which have procured for me the high honour which I now enjoy, have been but the amusement of evenings, after days spent in the discharge of laborious duties. I can thus speak from my own experience of the possibility of uniting business and literature. I can tell you from personal knowledge of the solace it affords to a life of labour; and, forming as it were, a link between the active and speculative world, I may perhaps

possess one qualification for addressing an institution which aims at uniting the energy of commercial enterprise with the refinements of literary thought. There is another circumstance which renders the honour now conferred in a peculiar manner grateful to me, and which I hope I may be forgiven for alluding to. I have lived so long in Scotland that it is generally believed that I belong to that country; but, though my ancestors were Scotch, I was not born to the north of the Tweed, and when your kindness recalled me to this country, it recalled me to the land of my birth. I was born at no great distance from this city, in the neighbouring county of Shropshire. My earliest recollection of the paternal home is of the solitude and seclusion of an English parsonage-house, and if any thing I have since done has rendered me worthy of your favour, it is owing to the example I then saw, and the precepts I then received. Nor has the long period which has since intervened weakened the recollections of infancy; not a long sojourn among the mountains of Scotland, nor the grandeur of the Alps, nor the beauty of the Appenines, have been able to dim the image of its surpassing loveliness. I still see in clear vision the Severn stealing through its grassy meads, the storied summits of the Caerdoc and Lawley, the woods of Acton Burnell Hill sleeping on their placid lakes; the Wrekin, arising in solitary majesty; the sun setting behind the ridge of Cader Idris. I see that the names I have mentioned are as household words to many who hear me; but if they are so to you, what must they be to me who am recalled to

their vicinity, after an absence of so many years, to fill a place which the descendant of the Howards was proud to occupy. Interesting as such assemblies as this must be at all times, and in all places, there is something peculiarly appropriate for them in a great commercial city such as Manchester. There is a natural connection which has made itself manifest in every age between commerce and intellectual eminence, and the greatest steps in human improvement, the greatest marvels of human exertions have arisen from their combination. It was to the commercial city of Tyre that we owe the invention of letters,—that wonderful and almost superhuman discovery, which first gave permanence to the creations of thought, and sends forth the “winged words” of genius to make the circuit of the globe, and charm while it endures. It was its fortunate situation on the highway from Asia to Europe, since re-opened by British enterprise, which gave its early celebrity and enduring fame to ancient Egypt; and we owe to the caravans of the desert, more even than to the power of the Pharaohs, those wonderful structures the pyramids of Cairo and temples of Luxor, which, after the lapse of 4,000 years, still stand “erect and unshaken above the floods of the Nile.”

“Turn ever to the land,
Where on the *Egean* shore a city stands,
Built nobly,—pure the air, and light the soil;
Athens! the eye of Greece, mother of arts
And eloquence.”

And we shall find that the genius, the taste, and the

fancy which have rendered the city of Minerva immortal—which have caused its name, after the lapse of two thousand years, to be adopted by an institution animated by a similar spirit, in a distant and then barbarous land, was owing to the combined efforts of commerce and intellect, to the vicinity of the harbour of Piræus to the temples of the Acropolis. Rome herself, the mistress of the world, owed her vast and enduring dominion mainly to the energies of commerce, and we have only to cast our eyes on the map and behold her provinces clustered round the waters of the Mediterranean, to be convinced that more even than to the arms of the legions, her power was owing to the strength of the maritime cities which glittered along its shores. It was the caravans of the desert which raised those wonderful structures which still at Tadmor and Palmyra attest the magnificence of the queen of the east, in Alexandria, that alone a library was formed worthy of the vast stores of ancient knowledge; and when the dominion of the consuls had fallen, and the arm of the Roman could no longer defend Italy from the swords of the barbarians, the incomparable situation and commercial greatness of Constantinople perpetuated for a thousand years longer on the frontier of barbarian wilds the empire of the east. Nor has commerce in modern times fallen from her high vocation as the chief spring of social improvement, and most powerful humaniser of man. It was in the manufacturing city of Florence that a rival was found in Dante to the genius of ancient poetry; in the mercantile emporium of Venice that painting rose to its

highest lustre on the canvas of Titian; Genoa sent forth that daring spirit which first burst the boundaries of ancient knowledge, and exposed to European enterprise the wonders of another hemisphere. It was in Lisbon that there was at once found, in Vasco de Gama, the courage to brave the terror of the Cape of Storms, and open the ocean path to the regions of the east, and the genius in Camoens to celebrate the glorious enterprise, and for ever enshrine it in the hearts of men. Great as these achievements are, there are yet greater things than these. It is in the north that the chief triumphs of the alliance between commerce and intellect are to be found. To one commercial city of Germany we owe the art of printing—to another the Reformation. The first has rendered certain the diffusion of knowledge, the last impossible the slavery of thought. In Antwerp, the immortal genius of Vandyke and Rubens brought painting to its highest perfection. Commerce in Holland achieved a glorious victory alike over the storms of nature and the oppressions of man. But why should we travel to other times and distant lands for a confirmation of the same eternal truth? In this age, in this country, in this city, its highest glories have been found. Here it was, and here alone, that a successful stand was at last made against the aggressions of revolutionary France; it was the discoveries of Watt, of Arkwright, and of Crompton, that arrayed the forces which the arms of Napoleon were unable to subdue. It was a company of British merchants which subjected the vast realms of Hindostan to the

sceptre of Queen Victoria, and exhibited the prodigy of a single *Delhi Gazette*, announcing in one day the capture of Caboul, in the heart of Asia, and the submission of the Celestial Empire under the walls of Nankin. It is the energy of British commerce which has peopled the western hemisphere with our descendants, and is spreading through the eastern Archipelago the wonders of European art, and the blessings of Christian civilization. Hitherto the progress of improvement has ever been from east to west—from the rising to the setting of the sun; but the merchants of England have for the first time in the history of the world rolled back the tide of civilization to its sources, and returned its blessings to the regions of the sun. It is their efforts which have realized the beautiful vision of the poet:—

Come bright Improvement! in the car of time,
And rule the spacious world from clime to clime:
Thy hand-maid Art at it shall every wild explore,
Trace every wave, and culture every shore.
On Erie's banks, where tigers steal along,
And the dread Indian chants a dismal song;
Where human fiends on midnight errands walk,
And bathe in brains the murderous tomahawk;
There shall the flock on thymy pastures stray,
And shepherds dance at summer's opening day:
Each wandering genius of the lonely glen
Shall start to view the glittering haunts of men,
And silence mark, on woodland heights around,
The village curfew, as it tolls profound!

Why do I recall thus anxiously to your recollection
the prodigies effected by the union of commerce and

genius in times past? Not to nourish a senseless, it may be a hurtful vanity, but to impress you with a serious, even a solemn sense, of the responsibility under which you were acting. I would have you recollect what has been done by your predecessors, what will be expected of you by your descendants. Midway between the past and the future, possessed of greater advantages, wielding greater power, than ever yet was enjoyed by man, will you fail in your glorious mission? But how is that mission to be fulfilled but by the elevation of the minds of the middle classes of society who are entrusted with its power. It is too late now to inquire on what basis the foundations of government should rest in this country. The foundations *are laid*: we have only to raise the superstructure. It is in cities such as this that the moving power which ultimately obtains the direction of affairs resides; it is in assemblies such as this that the spirit which animates them is elicited; but it is in institutions such as this that the wisdom which should guide them is alone to be found. It has been truly said by the poet—

“A little knowledge is a dangerous thing.”

And it is precisely to guard against that danger that such institutions as this are valuable; for no one has ever said that “*much* knowledge is a dangerous thing.” The people everywhere have this dangerous amount of information; it is in the extension and elevation of that information that the antidote to this peril is to be found. “Knowledge,” says Lord Bacon, “is power.”

He has not, observe, said it is either wisdom or virtue. But though not itself wisdom or virtue, it may be rendered such, and it was to secure that direction that you are associated. Great indeed are the results to public and private welfare which may be expected from the spread and success of institutions in which the real treasures of genius are to be found; the fortunes of our descendants are wound up with their success. I know of no security for good government in a popular community, but in the wisdom, moderation, and public spirit of the governed; and I know not where these virtues are to be learned but in the great book of experience, which is here laid open to your view. When a philosopher was asked, When does your education cease? he answered, "With my life." And well might he say so, for what is life but the education for eternity? Viewed in this light, this association is, indeed, an educational institution; but it is one where education in its highest sense is to be obtained—that education which does not end at seventeen, but at seventy; which does not merely aim at giving the rudiments of knowledge to youth, but the means of information, the power of elevating the thoughts, of gratifying the taste, to the whole of life. The great question of general instruction is viewed in too narrow a light, if it is regarded in relation only to the training of youth, or giving the means of reading to the poor. What is most required in society at this time, is a proper training of the minds, and elevation of the feelings, and extension of the information of the middle and elevated classes, and that not in youth

only, but through the whole of life. Unless this is done, the expansive force from beneath will become too strong for their direction, and the vast impulse of knowledge, instead of being the moving power which is to put in regulated and blissful activity the great machine of society, may induce the frightful explosion which is to shiver it to atoms. It is in the spread of real knowledge, aided by institutions such as this, that the fly-wheel is to be found. "Whatever," says Dr. Johnson, in words which can never become trite, so noble is the sentiment they convey, "whatever makes the past, the distant, and the future predominate over the present, exalts us in the scale of thinking beings." If we reflect on these memorable words, we shall form a fitting conception of the capacity of that soul which, able to look back through time, and forward to eternity, is limited only in its present flight by the bounds of space. "Fully," says Gibbon, "to appreciate this important truth, let us attempt in an improved society to calculate the immense distance between the man of learning and the illiterate peasant. The former by reading and reflection multiplies his own experience, and lives in distant ages and remote countries; while the latter, rooted to a single spot, and confined to a few years of existence, surpasses but very little his fellow-labourer the ox, in the exercise of his mental faculties." In vain does an utilitarian age ask what is the use of such pursuits?—what benefit is thence to arise to society?—in what respect is the sum of human happiness to be increased by this extension? What, I would ask, in reply, is the use of the poetry

of Milton—the music of Handel—the paintings of Raffaele? Why are the roses more prized than all the harvests of the fields, though they are beautiful alone? To what does every thing great or elevating in nature tend, if not to the soul itself—to that soul which is eternal and invisible, and never ceases to yearn after the eternal and invisible, how far soever it may be removed from whatever affects only present existence, and which, in that very yearning, at once reveals its ultimate destiny, and points to the means by which alone that destiny is to be attained? Regarding, then, literature in its highest aspect, that of the great fountain not merely of useful knowledge, but of elevated and generous sentiments, let me earnestly entreat you to apply vigorously to that which can alone give the passport to its whole treasures—the study of foreign languages. Charles V. said, that whenever he read a foreign language, he felt a new soul within him. It is the command of them which is the great cause of the difference between men of cultivated minds and mere ordinary information. How great soever may be the genius of our own writers, there must ever be a certain sameness in their conception. Foreign reading is like foreign travelling: you receive new ideas at every step. No amount of information derived merely from the writers of our own country can supply the deficiency. No mind can become enlarged which is not familiar with the thoughts of remote ages and distant countries: and no commerce can be extensive in which foreign is not largely exchanged for domestic produce. It is by the

collision of flint and steel, not by steel alone, that fire is struck. It is by promoting this interchange of ideas that commerce in every age has so powerfully contributed to the advancement of the human mind. Nor is such knowledge of less vital importance to individual and domestic happiness. "All our faults," says an author who knew the human heart well, "spring from the inability to be alone." Every day's experience must convince you of the truth of La Bruyere's remark. Thence comes the desertion of domestic life, the neglect of its duties, the careless parent, the disobedient family, and that wretched craving after external excitement which converts the paradise of home itself into an arid wilderness. But can that man ever be alone, can he ever dread solitude, who can converse alternately with Virgil and Cicero, with Tasso and Ariosto, with Racine and Corneille, with Scott and Shakspeare. To such a man is really true, what Cicero said of Scipio Africanus, "Never less alone than when alone; never less at rest than when at rest." This is the real exclusive society—this is the magic circle, which, indeed, dignifies humanity; for it interests without corrupting, and elevates the feeling without hardening the heart. But no haughty pride guards its approach—no zealous spirit forbids its entrance; the portals are open to all, but they are to be passed only on the wings of perseverance. Be not deterred, then, by the difficulties of the ascent, the toil requisite to reach the summit. Of such study may truly be said what has been so finely spoken of the moral uses of affliction—"It is like the black mountain of Bender,

in India; the higher you advance, the steeper is the ascent; the darker and more desolate the objects with which you are surrounded; but when you are at the summit, the heaven is above your head, and at your feet the kingdom of Cashmere." I add only one other consideration. I see with pleasure around me not merely an assembly of men, but a large proportion of the other sex. To the latter I would, in an especial manner, address myself, ere we part, and that not in the spirit of chivalrous gallantry, but of serious moral duty. I will do so in the words of a man second to none that ever existed in intellectual power, and least of all liable to be swayed in matters of thought by the attractions of your society. "It is my decided opinion," said Napoleon, "that every thing in the future man depends upon his mother." If any thing was requisite to support so great an authority, I would add, that as far as my own observation has gone, I have never either heard or read of a remarkable man who had not a remarkable mother. If, then, study is requisite for the men who are to rule the world, what must it be for you who are to form the men? whose blessed province it is to implant those early lessons of virtue, and inculcate those early feelings of religion and habits of perseverance, on which the whole future fate of life depends, and which, by the blessing of God, when once received, will never be forgotten? Thus it is that you will duly discharge your inestimable mission; thus it is that you will contribute your part to the great work of human advancement; and thus it is that you will regain in

home the lost Paradise of Eden, and be enabled to say of it, in your last hours, "This it is which has softened the trials of Time; this has, indeed, been the gate of heaven."

ADDRESS

DELIVERED TO THE MEMBERS OF

THE MANCHESTER ATHENÆUM,

ON THE 11TH NOVEMBER, 1848,

BY LORD VISCOUNT MAHON, M.P., D.C.L.

LADIES AND GENTLEMEN—Appearing before you as I do this evening, altogether unconnected with you in residence or in representation, a stranger personally to almost every one around me, and differing from many amongst you in views and opinions on public affairs, yet I believe that these very circumstances afford only a clearer token, a more convincing proof of that link of brotherhood which should always bind together those engaged in the pursuit of arts, of letters, or of science. When you invited me to my present high position, and when I accepted the honour proposed to me, I felt that men animated by the same desire for mental cultivation should not be deemed strangers to each other, and that party differences should be laid aside for the time, frankly and freely, whenever the question arises, by what means knowledge may be best appreciated and most successfully diffused. I think, too, I may say that meetings like the present, besides

their first main object, are also in their collateral effects highly beneficial. We are all, I think,—to whatever opinions or denominations we may belong,—inclined to judge too unfavourably of each other. Surely, then, it is no slight advantage of an assemblage like this, inviting to one common field of action labourers both far and near, that we should depart again with kindly feelings towards each other, and a belief in each other's rectitude of purpose in our different paths, and with sentiments of personal friendship and good-will. Ladies and gentlemen, the institution whose anniversary we are met to celebrate, has for its object to diffuse as widely as possible the advantages derived from the study of literature and of science. In both these departments, it is your object to render the library and the other means of information as ample and as well selected as they can be. Now, first as to science, I cannot but feel it almost superfluous that I should say a single word to recommend its study to such a meeting as I see before me; for if you look around you, there you see the greatness and importance which Manchester has attained; and if you consider within how limited a period that attainment has taken place, you cannot, I am sure, forget, that this greatness and this importance are mainly owing to the discoveries of modern science. Consider what rapid advances these discoveries in science have enabled you to make. But little more than a century ago, Prince Charles Stuart, or as called at the time the young Pretender, marched through your town and lodged at a house standing not many years ago in Market-street,

—and I ask you, if it were possible for him to revisit these scenes, do you think that he would recognise these scenes again? Do you think he would see any resemblance between the not considerable town, as it was then, which he so easily marched through, and what it has now become, this immense capital of our manufacturing enterprise, this vast mart of active wealth, this hive of incessant industry! What would he have said to those lines of factories which have since arisen on every hand, affording honourable employment to hundreds of thousands of our people, and the beneficial effects of whose produce have been felt in the remotest quarters of the globe? Why then, I say, when I see so much progress made, and when I know that this progress has been due to science; when the discoveries of science form in fact the chronicles and annals of your city,—can I then doubt for a moment that the study of science will require no recommendation or encouragement to you; that you will be desirous to explore the root of your own greatness, the groundwork of your own importance? In no place, therefore, do I think that the recommendation to the study of science can be less needed than in the city where I have now the honour of addressing you. Nor, ladies and gentlemen, let me be told, that the study of science is too hard and difficult for hours of leisure, for hours that must be taken from many other active pursuits. Let me remind those ladies who have graced and honoured us with their presence this evening—that one of themselves, one of the ladies of England,—Mrs. Somerville,—is not more remarkable

for the depth and accuracy of her own scientific knowledge, than for the still higher and rarer gifts of making the avenues to that knowledge clear and delightful to others. There is another writer of the present day,—Professor Nichol, of Glasgow, who deserves the same praise,—that while his own scientific attainments are deservedly held in high estimation, he has written popular works, which make the first steps in that science easy of attainment, and within the reach of all. I do not mean, of course, that in science, any more than in any other pursuit, high skill or proficiency is to be obtained without severe labour and exertion. I am speaking only of the first elements, of the earliest stages of science. Indeed, my own acquirements would not qualify me at all to speak of any other than these; but speaking of these first stages or elements of science, I can state from my own experience, that their study is not incompatible with other pursuits, and that they may be sources, even when pursued no further, of high intellectual pleasure. Ladies and gentlemen, when I alluded to science, as having peculiar claims to encouragement at Manchester, I alluded, of course, to branches of mechanics, or the more practical sciences. But there are other branches of which it is the boast and pride that they are confined to no one age, to no one clime, but may exist in and receive pursuit and encouragement in all. The names of Mrs. Somerville and Professor Nichol, lead me naturally to mention also that science in which they have attained such eminence, the study of astronomy. Even the first elements of that science are capable of affording

intellectual pleasure of no ordinary kind. I remember that an English statesman of bygone years,—one certainly not to be approved for many parts of his public life, and still less to be esteemed, or even excused for what are termed his philosophical opinions, but still a man of great and surpassing genius—I mean Lord Bolingbroke—goes so far as to enumerate it among the consolations of exile, that there is no spot of earth where the study of astronomy may not be pursued. His words on the subject are marked by so much elegance that I am sure you will forgive me if I attempt to repeat them. Lord Bolingbroke says in his “Reflections on Exile”—

“There is no part of the world from whence we may not admire those planets that roll, like ours, in different orbits around the same central sun; from whence we may not gaze at other objects, still more stupendous—the army of fixed stars hung up in the vast space of the universe; innumerable suns, whose beams enlighten and cherish the unknown worlds that revolve around them. And, when I am rapt in contemplations such as these, when my soul is thus borne up to heaven, it imports me little what ground I tread upon.”

But in speaking of the praise that belongs to the study of astronomy, testimonies much higher, as well as much more ancient, than these, may be adduced. There is, as I have always thought it, a most noble and striking thought of Cicero, in the first of those unrivalled essays of philosophy, which he wrote in his villa of Tusculum, and which derive their name from it; where he says, that in his opinion, the man who is able, by the force of his intellect, to calculate the movements of the great celestial bodies, and to decide

in what orbits they are about to run, shows that his mind is akin in its immortal interest to that Almighty Being, by whom those celestial bodies were fashioned and framed. Surely this is a striking thought from a heathen writer on whom the light of revelation had never shone. But we, who know, in the words of unerring truth, that "God created man in his own image," can to such a thought affix a higher and a holier meaning. Sure I am, at least, that in no one pursuit does man elevate himself more above his frail being here below, and manifest more clearly the immortal spark within him, than in those studies of astronomy which enable him—an atom, as it were, in creation, living on a world which, after all, is but another atom amidst the far greater worlds which, at immeasurable distances, surround him—to calculate, with unerring precision, the exact second of time when one of those celestial bodies appears to eclipse the other in the sky, or to tell the precise instant of time when one of those great fixed stars should seem to shoot across the disc of his telescope. Are not these achievements of the human mind worthy of praise, of celebration, of attainment? Sure I am, too, that no one study, if properly pursued, is better adapted to raise up our minds in humble adoration to that Almighty Being, who has made us what we are, and has permitted us, though at an infinite distance, to pursue the study and knowledge of his works. Ladies and gentlemen, there are other branches of science which, unlike astronomy, have not flourished in many ages and countries, but which are, on the contrary,

remarkable for the great and rapid strides which they have made in our own days. Not, indeed, that I mean to doubt that astronomy also has made great progress; but there are sciences which, as it were, have started into being altogether within the memory of man. Now, such a science is geology. See what great triumphs in geological discovery have been achieved, and within how narrow a space of time. We cannot, perhaps, measure this progress more clearly than by showing the altered feeling with which men of education and knowledge speak of geology. In the last century, it was a not unfrequent topic of ridicule; now we find its discoverers treated with general esteem and respect. Sixty years ago, for example, Bishop Watson, certainly a man of no mean order of mind, of no slight intellectual attainments, used to say, that the geologist who attempted to speculate on the internal formation of the globe, reminded him only of a gnat, which might be perched on the shoulder of an elephant, and might, by the reach of its tiny puncture, affect to tell him what was the whole internal structure of the majestic animal below. Those were the words of an able and accomplished man only sixty or seventy years since. Would any man of common education or judgment use similar words now? Is there any man who would mention, but in terms of respect and esteem, the researches of such men, for instance, as Dean Buckland, or Sir Charles Lyell? See, too, what great and curious results have crowned those researches. Take that very point of the internal structure of the globe,

in which it was thought that nothing beyond the reach of actual observation could ever be probably conjectured. Since that time, I need not remind very many amongst you, how it has been found that when layers of matter—strata, as they are called—decline into the earth at a certain angle, and then, sometimes at a vast interval of space, reappear from the earth, again at a similar angle, and having exactly the same distances between the layers—I need not remind you that it has been found possible to calculate, with probability approaching to certainty, what must be the structure of the globe miles and miles lower than the foot of the most adventurous miner ever trod. I, of course, glance only briefly on these topics; but you would see, if it were developed by some one better able in scientific attainment to do it justice, that even that ground on which the deriders of geology were wont to rely, has, on the contrary, afforded to geologists the scene of one of their proudest intellectual triumphs. And in speaking of geology, I would not disjoin that science which, strictly speaking, is not the same, but yet which is seldom separated from it in study—I mean the study in which Cuvier attained such mastery and skill,—the study of the remains of extinct races of animals, and the reconstruction of their scattered bones, so as to afford, by analogy, no small probability of an accurate estimate as to their structure, their size, and even their habits of life. Surely, this again is one of the great triumphs of the human mind; and surely, even in its first elements and stages, the study of this science is well worth your hours of leisure.

I remember being especially struck with one of the discoveries of the school of Cuvier with reference to one of those animals which, so far as we know, human eye had never seen, and of which, in this instance, it happens that, so far as we know, no vestige of its substance remains,—not one fragment of its bones, not a shred of its skin. Ask yourselves, then, for one moment, how was it possible to acquire any knowledge respecting it? Does not this, at first sight, appear an almost impossible task? Do not the difficulties in the way appear insuperable? Yet these difficulties were overcome by the school of Cuvier. And how? Why, by the footsteps which this animal, in its lifetime, had impressed on the sand of the sea shore. These footsteps had become petrified in the course of years; and from the examination of these, a follower of Cuvier was enabled to deduce, first, from the intervals between them, a calculation as to the size of the animal; then, from the configuration of the steps, a calculation as to the order of animals to which it might have belonged; comparisons with other animals whose footsteps are the same or similar; and thus, with no other positive vestige remaining than these petrified footsteps on the shore, the pupil of Cuvier was enabled to construct, not as a vague theory—not as a mere guess, unsupported by experiment, but as the result of analytical reasoning, and of analogies in similar cases, a most probable system as to the size, the structure, nay even the habits of this animal. Am I, then, wrong in saying, that the study which presents such results, which, even when imperfectly stated, seem so sur-

prising, is a study that may well be recommended, and in which you cannot fail to find abundant sources of delight? If, ladies and gentlemen, from the study of science you turn for a moment to the study of literature, I think I may say, that literature also will afford for your hours of leisure pursuits well worthy your attentive adoption. In the field of historical literature, for instance, how many subjects of interest may present themselves to you? Perhaps in the whole range of historical literature, there is none more fraught with interest, more full of instruction, more worthy in all ways of your attention, than the study of that city from which the name of your Institution is derived—the study of the history of Athens. It has been the lot of few amongst us to explore for themselves the remains of that renowned city; yet who is there that has cared or thought for literature at all, who has neglected to explore it in story? Who is there that has not sought to familiarise his mind with those scenes—to see, as it were, with his mind's eye, the remains of that majestic temple which crowns the Acropolis, and which, even in its present state—despoiled as it has been by man, scathed as it has been by time—is yet, perhaps, superior to any other structure in the zenith of its splendour, and fresh from the sculptor's hands? Who is there that does not love to trace in description, and to see with mental eye, the prospect which presents itself from that citadel and temple of ancient Athens? Those marble columns, still standing around those sunny heights of Hymettus; that plain, divided by a scanty

stream, and gray with its scattered groves of olives ; and beyond, in the distance, the azure expanse of the Ægean sea. You will remember how the scene from that spot has been described by a great poet of the present day—

As thus, within the walls of Pallas' fane,
I marked the wonders of the land and main ;
Alone and friendless, on that magic shore
Whose arts and arms but live in poets' lore,
Oft as the matchless dome I turned to scan,
Sacred to gods, but not secure from man,
The past returned ; the present seemed to cease,
And glory knew no clime beyond her Greece.

And then, you may remember that in another part of the same passage, Lord Byron adds,—

Who, that beheld that sun upon thee set,
Fair Athens, can thine evening face forget ?
Not he whose heart nor time nor distant frees,
Spell-bound within the clustering Cyclades.

It is natural, ladies and gentlemen, that the scene should become familiar to the mind's eye of all of us ; for that has been the scene of some of the noblest writings, of the noblest works of art, and of the noblest speculations in philosophy, which the world has yet seen. In some branches of science, in many other branches of human knowledge, we have far, indeed, outrun the early Athenians ; but in some we have never yet been able to surpass or even to rival that great people, which, like its own emblem of Minerva, sprang full-grown and full-armed into life, and, at a time when society was in its infancy, produced

works which even the ripest maturity of progress has never yet been able to exceed. For, ladies and gentlemen, you will remember that, great as have been the strides which we have made on other points, the world has yet to seek a sculptor greater than Phidias, or an orator greater than Demosthenes, or a philosopher greater than Plato. And there is one thing, allow me to remind you, which makes the study of Athenian history—(a study which many popular works have rendered easy and delightful of attainment)—come peculiarly home to you, and that is, that in ancient Athens the study of arts and the acquirements of literature were united with, and made to flourish by, the pursuits of commerce. For while these great speculations in philosophy were being pursued in the groves of the Academy, and while Phidias was raising the master-pieces of his art,—at that very time, ships from every clime then known were crowding the wealthy port of the Piræus. And thus it was that with these people the pursuits of commerce were not only joined with, but formed a foundation to, the superstructure of art and literature which still continues to excite our wonder and admiration. Surely, ladies and gentlemen, this is no uninteresting study to pursue; surely this is no unworthy model to follow. You will, I am sure, continue to remember what we are taught by the history of Athens,—that the wealth which has been honourably gained in the pursuits of industry, can in few ways be more gracefully and liberally dispensed, than in enriching our native city with works of art, and with contributions of literature

and of science. In this respect, allow me to repeat my opinion, that Athens is a model which may be held out with advantage to all, and which every one may at least study with the greatest interest and pleasure. Ladies and gentlemen, I imagine that there are few who would doubt that studies of this kind, when fully pursued, must be a great source of improvement and of pleasure; but I should wish to convince you of a fact not less certain, though I think less commonly acknowledged,—that an acquaintance with these scenes of history may advantageously mingle with many details of our common life; that it may lend fresh zest to every pleasure, and enable those who possess them to taste pleasure which those who are destitute of them can never know. Let me take so common and trivial an occurrence as a summer's holiday,—let me suppose a time when many amongst you, released for a time from your more active occupations, are able to enjoy a few weeks' or days' excursion; and let us see whether, in this case, some knowledge of history may not add greatly to the pleasure you would taste. The traveller passing rapidly, with all the speed which railroads now supply, through the plains of Lancashire, already familiar to him, may stop short when he arrives at Penrith or at Carlisle, being anxious during his leisure to explore the lakes of Cumberland on the one side, or the range of the Cheviots on the other. If, then, he turns to the left, and winds his way to the lakes of Cumberland, and ascends the last hill above the Lake of Derwentwater, and sees that fair prospect opened before him, he will

on the summit of that hill find himself amongst the circle of Druids' stones. Now, to those who have not attended to any of the details of the Druids, as Cæsar and Tacitus record them, and as so many modern writers may, if you will, make familiar to you,—to those who therefore felt no interest in these Druids, the circle of those stones would seem nothing but a ring of moss-grown fragments of rock, and would be dismissed without a parting thought. But what pleasure would their contemplation afford to him who had embued his mind in some measure with some of the strange traditions which relate to the rude faith of our forefathers; and how much interest would he feel amongst those very stones, in recalling to his mind some traces of their bloody rites or fantastic superstitions? Can you doubt for a moment which traveller, in this case, would enjoy the greater pleasure? Or, on the other hand, had the traveller gone to the right, along the foot of the Cheviots, he would, at nearly every step, encounter the remains of the majestic Roman wall. There, again, to any one who was indifferent to the history of Rome, these remains would seem only so many tufts of matted ivy, and so many heaps of cemented bricks. But he who knew something already, and might wish to know more, of the traces of that wonderful people, who fortified an island as we would a town,—who constructed works whose magnificence in ruins even now astonish us,—such a traveller would find ever fresh delight in every trace and vestige of antiquity which presented itself; and, while enjoying not less than his companion the other

delights of the excursion,—the fresh spring air, or the distant view, or the other objects on his way,—he would have this great additional source of interest, which the person destitute of that information would be compelled to forego. I am or should be anxious, at least, if I were able, to impress upon you that literature is not a mere holiday thing, to be assumed on some special occasion, but that it may mix and blend itself with the affairs of every-day life,—with our hours of pleasure, with our day's excursion,—not only without diminishing a pleasure, but with a considerable increase and enhancement to it. Believe me, ladies and gentlemen, the pleasures of reading deserve most careful cultivation. Other objects which we have in this world, other pleasures which we seek to pursue, depend materially on other circumstances, on the opinion or caprice of others, on the flourishing or depressed state of an interest or a profession, on connections, on friends, on opportunities, on the prevalence of one party or the other in the state. Thus, then, it happens, that without any fault of ours, with regard to objects dear to us, we may be constantly doomed to disappointment. In the pleasure of reading, on the other hand, see how much is at all times within your own power; how little you depend upon any one but yourselves. In saying this, I do not mean to forget for a moment, our entire dependence on that Almighty Being who may, if He so please, strike with blindness the studious eye, or afflict with incapacity the inquiring and discerning mind;—but, subject to that Almighty power, to which, under all

circumstances and at all times we are subjected,—see how little the man who can rely on the pleasures of reading is dependent on the caprice or the will of his fellow-men. See how much there is within his own power and control;—how by reading, if his circumstances have been thwarted by any of the fortuitous events to which I have just referred, how often it is in his power, by these very studies, to better his condition; or, failing in that, how many hours he has in which to obtain oblivion from it, when communing with the great and good of other days. Surely, then, all those who feel—and who does not?—the variety and the vicissitudes of human life, ought, on that very account, if they be wise, to cultivate in themselves, and also to promote in others, an enlightened taste for reading. Of the pleasures of reading I will say, that there is no man so high as to be enabled to dispense with them; and no man so humble who should be compelled to forego them. Rely upon it, that in the highest fortune and the highest station, hours of lassitude and weariness will intrude, unless they be cheered by intellectual occupation. Rely on it, also, that there is no life so toilsome, so devoted to the cares of this world, and to the necessity of providing the daily bread, but what it will afford intervals (if they be only sought out) in which intellectual pleasures may be cultivated and oblivion of other cares enjoyed. Depend upon it that these are pleasures, which he who condemns, will find himself a miserable loser in the end. It is with views like these, that you have founded the present Institution, to encourage and to

promote, as far as possible, a taste for intellectual pleasures. This Institution, on that ground deserves, and I am sure will receive, support. I am convinced that, conducted, as I trust it will always continue to be, with skill and judgment, the principle of its institution is so sound, that this principle must always prevail. You cannot expect that an Institution of this kind should be equally flourishing at all periods of the fluctuating transactions of business from year to year; but of an Institution on the principle which I have described, and under the management which I anticipate will continue, I will venture to predict, that it will keep its ground amidst your difficulties; while, on the other hand, it will grow with your growth, and prosper with your prosperity. I believe that this Institution contains within it a sure principle of vitality; because I believe that it contains within it a principle of usefulness. Sow the good seed, and rely on it that your harvest, whether retarded by a passing cloud, or quickened by a genial sun,—your harvest, whether late or early, will be plentiful, and your reward secure.

ADDRESS

DELIVERED AT THE SOIREE OF

THE STIRLING SCHOOL OF ARTS,

ON THE 10TH JANUARY, 1849,

BY JOHN P. NICHOL, LL.D.

PROFESSOR OF PRACTICAL ASTRONOMY IN THE UNIVERSITY OF GLASGOW.

MR. SHERIFF AND LADIES AND GENTLEMEN,—The subject you have asked me to discuss is wide and various. You desire that I enforce the considerations which commend your School of Arts, and all efforts akin to it, to the good-will and support of our countrymen; and it is thus my duty to unfold, in what various ways such instruction as these institutions can bestow, may bear auspiciously on the condition and character of a people, whose many and keen susceptibilities, whose diverse intelligence and innate worth, have so often—and this time in the hearing of us all—been the theme of One* whose rare and noble genius burns at the touch of patriotism as a sacred fire; rising towards Heaven in aspirations of devotion and love—an offering from his country's altar.

I need not, I am sure, warn you at the outset, that

* Referring to Professor JOHN WILSON, who had preceded the Speaker.

in undertaking to treat a question whose relations are so manifold, before such an audience, and at such a time, I must sacrifice every thing to brevity and clearness; nor, indeed, after what we have listened to, could it be wished that I hazard an incursion into the fields of rhetoric, even if the matter before us had presented fewer points requiring to be calmly elucidated, and estimated according to their simple reasonableness. Putting aside, then, every unseemly and uncalled for ambition, I find myself reminded by my friend Mr. GILFILLAN, that there is at the threshold of all considerations on this subject, a difficulty which we must meet. The difficulty to which I refer is the old one about "not tasting or drinking deep;" and, as much of what I have to say, will seem important or unimportant according to the opinions you have formed on this matter, I feel it necessary to state my own views of it. Now, in so far as the objection is of any significance, it seems to consist of one or both of two assertions, viz.:—that no accurate knowledge can be communicated in any manner of which Associations like this can take advantage; and that the knowledge which can be communicated, is not likely to exert a beneficent effect on those who acquire it. It may be, Sir, that the moralist, and those who follow him in our later times, discern more in their favourite adage than I have compressed within the foregoing two propositions; but I believe that these supplementary dangers are in nowise of much consequence, and that if I can satisfactorily dispose of the difficulty as above defined, our way will be clear.

I. In reference, then, to the first assertion we have to combat, the question is, whether, by what is termed popular instruction—any accurate information can be communicated to our countrymen at large? Now, if here I really felt in straits, and required to cast abroad for wherewithal to construct a case, I think, that among the various subjects, rapidly, but so pleasantly touched on, by that eloquent speaker (the Rev. Mr. EDMOND) who has just carried us with him around the circle of human knowledge, I could, without anxious research, place my finger on many groups of facts, in themselves curious and unusual and by their relations most instructive, which, in all their breadth and bearing, may be discerned and appreciated by any mind of average acquirement and not more sharpened in its faculties than every mind of ordinary temper must be, which habitually ranges through that goodly sphere of earnest and diversified action and thought, that comprehends the rights and duties of a member of our British commonwealth. Nay, there is another argument:—I might ask whether I am to understand that, to avoid the hazards of being misled by inaccurate knowledge, the man of Science himself, requires to be confined within his own precise department—the spot beyond which, the field he can challenge as of right belonging to him, very rarely extends? For assuredly there is seldom much difference between the relations of a professional student with the domain of nature external to his special corner, and those which connect men of general pursuits with the information presented for their instruction and pleasure, by popular writing

and speech. The truth is, that if we measure this same "deep drinking," by the care with which men build up, from their roots, those intellectual schemes with which they are satisfied, not many will be found to have pledged themselves to the accuracy of all they stand by, in draughts either generous or profound; and, if we were hard put to it, the question might thus very fairly be asked, why, in such a condition of affairs—seeing that with all the enlightenment and activity characteristic of modern civilization, few have penetrated in many places to ultimate and absolute truth—it is only when we speak of a *general* education, and endeavour with our best diligence to attract towards certain elevated themes, the busy and curious multitudes around us, that we are told to hesitate, and look on our doings with scrupulous alarm, lest amid what we communicate there may be some statements, and some views of the relations of things, which are perhaps not made to rest on their primal elements! And I broadly put it to you, Mr. Sheriff, whether, by such considerations, something of a case might not be made, on behalf of those proceedings like ours? For myself, assuredly, after no slight experience, I do not feel greatly inclined to place the description of information given at such popular institutions, below that which, in the estimation of general society, is allowed to constitute a very fair amount of scholarship to varieties of grave and respectable men. But, passing away from partial defences, and looking at the subject in its true amplitude, I am prepared to maintain, that the alleged difficulties and objections, are in

every respect and fundamentally unreal; and that the task of spreading out before minds of ordinary intelligence, the spoils even of the loftiest sciences, does not involve that the Instructor descend from the dignity of his high position, or because, as the phrase goes, he is teaching "popularly," that he sacrifice one hair's breadth of stern unchangeable truth. Certainly we have heard men, attempt, or rather pretend to instruct, who plainly knew nothing of so noble a mission. It has on several occasions—some of them of no slight importance—been my own misfortune to listen to popular lectures, as they were called, given by persons having something of a name, and aiming at considerable scientific eminence, who fell into the egregious blunder of imagining that the multitude before them would best be satisfied by bad jokes, and witless gossip. I fear I judged the poor speakers uncharitably, but—whether I would or no—it did come into my mind, that they attached little real importance to any thing they had to tell; and that a pen like Cowper's might find subjects for its lash among intruders within Nature's august temple, different from those whom he has immortalised—unfortunately not killed. I saw, at least, that they had never tasted that profound and solemn pleasure which men of right temper must ever feel, when it is their privilege to commune with hearts beating in unison, concerning the greatness and glory of this wonderful Universe. And well I knew how utterly they had mistaken the desires of their countrymen in such assemblages, who, though some may be there through curiosity, seek in

7 the main for earnest words—words to aid them towards a higher life—to reveal some unknown or unremembered truth concerning the great scheme surrounding us—to awaken gratitude, or awe, or other emotion, never touched by flash or glare or trope—the hop skip and step of slipshod rhetoric. I fear, Sir, that one cause of exhibitions of this description—which have been called popular teaching, but which I beg to say are no teaching at all—is even *that* so well and justly characterised in Cowper's lines: but the very shallow, though wide-spread mistake, which invests with some authority the objection I am combating, lies elsewhere. It is certainly not to be denied, that this objection may be stated in a way to make it seem plausible. Take up, for instance, a good and extensive treatise on astronomy—say Mrs. Somerville's most excellent treatise on Celestial Mechanics,—turn over its pages, observe them one after the other full of symbols as unintelligible apparently, and uninviting as a work in Arabic,—who shall pretend to teach *this* to a popular audience? And if such really be the science of astronomy, then is not what we do or can teach—a mere sham, a set of loose assertions, and in truth no science at all? Now, there is a certain amount of correctness in this, and I will show you by an illustration precisely what is that amount, and where it lies. I need not, I am sure, recall to the mass of my present hearers, how, in recent years, and by a wonderful process of inquiry, light has been thrown on the anterior fates of one of the most attractive but mysterious portions of our globe—those

huge ruins on the Nile, so long silent as their sphinx, defaced but beautiful, tongueless but labouring with some marvellous history, companions of the gigantic Past but unable to find a sympathising ear amid the Present. Yes! by a *touch*, the spell which bound them has been broken, and they are talkative as our own compeers! The mode in which those temples and palaces narrate the story of their pristine grandeur is indeed a very strange one, puzzling in reality as in aspect, more attractive possibly to the eye, but quite as repellant of the general reader, as Mrs. Sommerville's algebra! Now, the question I wish to ask here is, whether no one should be instructed in these records of the ancient world, unless he first can decipher the hieroglyphics, and translate the language of which they are the alphabet? It is practicable, nay it is not difficult, to show to any intelligent person, that these hieroglyphics *can* be read, or even to carry him through the steps by which the genius of Champollion or Young ascended to a discovery then unique in the history of literature: but if, before advancing farther, the student must acquire the Coptic tongue, and become familiar with its ancient state, then, I fear, that in so far as men in general are concerned, the sculptured walls of those palaces are silent still, and those rich papyri of the tombs have been preserved in vain! And this case, although a strong one, is not, by any means, clearer than the one I desired to illustrate by means of it. It were some misfortune to be debarred from the power of estimating the genius and following the conquests of the great SESOSTRIS, until we could spell

the hieroglyphics that relate of him; but assuredly one incomparably deeper, to be shut out from an appreciation of that grand Law of Nature, whose discovery we owe to NEWTON, unless we have mastered the peculiar method of reasoning which enabled him to derive it from other truths. Few novel efforts to disentangle the course followed by our race, are more engrossing, even in this age of acute historic criticism, than those penetrating glances into the morning twilight of man's epoch in this world, which have shown us, by aid of Egypt, the hoary ancient empires falling into unexpected relationship—pointing upwards to some high table-land, whereon, in common, men seem to have found those lofty elements which, in after ages, spread into various civilizations. But of what import are these; how utterly does the value of such knowledge disappear, if we lay it beside the wonders of the Heavens, that almost immediate tracing by God's finger, by which, through all space and time, his glory and majesty shall be declared! Is it, then, for one moment to be accounted illegitimate—contrary to the ordinances of what they term *logic*—that men's hearts shall warm beneath the midnight skies, and feel awed by a sense of the order prevailing through their august hosts, unless, after first criticising and duly weighing the methods by which the solitary student—working, not for himself merely, but for all men and all time—has been enabled to descry that order? Verily, how absurd is this! Am I to benefit in nowise by the toils of the traveller, unless—as boon companions—we have carried each other's knapsacks?

Is yon illustrious pioneer, who has reached a virgin pinnacle, and now is filling his heart with the splendours of the landscape he has won, of no greater service to his race, than by inducing a few to come after him, and across rock and marsh to toil also with weary foot, towards a region, once thought inaccessible? Must he send to us no report, no description, no painting, of the grand prospect opened first to his eye, and which, in that case, except with regard to two or three in a generation, can have no relation to humanity? Let me cease, however, from declamation: the fallacy is as transparent as egregious. In exposing Astronomy—or any similar science—so that its truths be generally understood, we do not teach what is written in that volume of Mrs. Somerville's, or other books of corresponding aim. I say, emphatically, that we do not use such books, because we do not desire to teach what is in them. It is the aim of these writers to deduce the phenomena of the Heavens out of fundamental dynamical laws; but the object in our view is merely to explain and unfold these phenomena and these Laws. The investigation by which a certain Law of the celestial mechanism was discovered, is one thing; but the nature of the Law itself is another, and it is the latter only that the popular teacher undertakes to explain and illustrate by analogy. It is even possible, in most cases, to convey an amount of information respecting the investigation itself; we may describe its nature, although we do not follow it; just as one afar off, can trace a rugged path among the hills, which in nowise he would attempt to climb. I think there

can be no doubt, then, that the skilful teacher, in accomplishing the task I speak of, is under no temptation to take help from inaccurate reasoning; only his reasoning will be shaped by his *peculiar object*. If I may speak from much personal observation, I would say that the cause of loose exposition alike in popular books and popular lecturing, is especially this,—the teacher has not succeeded in *realising his object*. It is a great misfortune that, in this country, we have not yet devoted time to the study of Education as a *science*,—the *science, viz., of the laws and method of Exposition, as required by various subjects and various circumstances*; and hence it often is, that when we have occasion to depart from mere *abstract* exposition, the absence of well defined purpose becomes perceptible, and the result is—a jumble. There are few things more to be wished than that some competent pen would assume the important task of critically examining how knowledge ought to be communicated to the various minds thirsting for it. Believe me, the doors of the temple would not, by such an Inquirer, be found to be shut—all, save one narrow wicket through which a man must be very spare to thrust himself. *There* is the centre gate, back on its hinges; and the people may enter, ay, in mighty throng, struck with reverent silence, to wonder and adore!—I have spoken of teaching—of one rather special kind; permit me to recall a different scene: it occurred about two years ago, in a gorgeous hall in Oxford, the circular room of the Ratchliffe Library, always a superb room, but never, I believe, looking more splendid than then. It was filled

with an immense crowd,—the occasion being an evening meeting of the British Association. The company was of course promiscuous: women, men, ladies, gentlemen, hearers and no hearers, men with long gowns, and men with fashionable coats:—it appeared a motley crowd. In the centre of the room, a place had been prepared for a speaker, who meant to use complex and various apparatus; and near him sat some who were distinguished: among others, I recollect almost a resurrection of Napoleon with that brow of chiselled marble,—it was the Prince of Canino. The speaker appeared, and the hum ceased for a time. The subject to be developed was a difficult one, and entirely new;—it referred to some of those recently detected, almost evanescent relations, between magnetism and the interior structure of bodies, or of light itself. The lecture lasted an hour, and if I were not afraid of being suspected of exaggeration, I would say that none of that mixed assemblage stirred until it was done. We felt only one thing—*we were being instructed*. Our teacher, also, thought not of himself—*he was instructing*. In that long address there was not a word out of joint, or unintelligible. Knowing the state of the minds before him, he spoke to them as they were, and familiarised them with a new order of wonders. I am sure he did not think he was condescending; I am sure he defaced no truth; and I think he must have been a strange person, if even *one* was there, who, in presence of that power, could mistake the mission of the lecturer. The dignified and accomplished speaker was FARADAY.

II. I believe, Mr. Sheriff, that I may now quit this part of the subject. Nor would it have been worthy of so much of our time, had not that misapprehension been very general, which not only gives colour to the charge I have investigated, but has also seriously interfered with the extent and efficacy of popular instruction. The next difficulty in our way depends on this one in so far; but it has also fallacies, and very serious ones, of its own. We are told that knowledge so loosely given and easily acquired cannot in the least conduce to "MENTAL CULTURE;" that, although it may excite and satisfy curiosity, it is not fitted to accomplish permanent good, or to bring the mind into true and improved relations with the universe. Now, Sir, I think we shall easily get over this form of opposition, if we look at it somewhat steadily. In the first place, we must grant at once, that if popular tuition confines itself to an ordinary exposition of the results of science, and to a rational account of the methods by which such results are evoked, it will not, in so far as that goes, *exercise* us, if I may so speak, in the working of these methods. For instance, though I have become acquainted with the nature of all the superb deductions of LA PLACE concerning the System of the World, I may yet be unable to follow him through his subtle and arduous analysis; nay, while the attainment of what alone I have really reached, has cost me only the employment of the evenings of a single winter, that other knowledge would, for its acquisition, have demanded the steady and unremitting action of years. It cannot be doubted, therefore, that the effects which

such hard study would have produced, are not necessarily evoked by the kind of acquaintance with astronomy of which I have been speaking; and if our objectors mean no more than this—if they simply say, that though we have learnt about astronomy, we have not studied algebra, and reaped thence all manner of intellectual and moral fruits,—why we cannot gainsay it; we must shake hands, and close the controversy at once. It is, however, assuredly very far from being a satisfactory close of the controversy: at least, for myself, I cannot, with all honesty and good will towards the friends we are discussing with, discern what has been made out thereby, in hostility to popular institutions, or even in depreciation of them. If we can't be all algebraists—as it is very clear we cannot—does it on that account injure us to know of some wonderful truths regarding the laws and order of the universe? Is *that* in opposition to “mental culture?” I cannot believe, however, that charges so serious, and disapprobation so weighty, do in reality involve nothing more serious than this; nay, I suspect there is a fallacy at work, of no slight depth or influence, which not only gives rise to the difficulty we are treating, but introduces error into all our notions respecting the agencies which promote this “mental culture.” I have long noticed, when meditating on the many questions involved in the great subject of Education—that men of literary and speculative habits have little conception of any influence by which the human faculties are cultivated and strengthened, apart from formal and scholastic exercise in youth; and that

—wisely considering the strengthening of the faculties to be of paramount moment when compared with simple instruction—they conclude that the acquisition of knowledge is only of consequence, in so far as *in this peculiar way*, it conduces to such culture. Now, the first and main error committed here is a very evident, although a very serious one. Speaking generally, that which we properly term *mental culture*, has, most happily, an origin far less limited than the prevalence of accurate study ever must be; and indeed a very slight and superficial survey of society, may suffice to convince us that only an insignificant part of that culture arises through such means; nay, it were a most woeful affair, if none could reason well, or reflect well, or use knowledge aright, except the few through whose minds have passed the processes of strict demonstration, and the subtleties of the modern analysis. For myself, indeed, I must frankly declare, that it is a fraction only of the “culture” vivifying the civilization around me, which I can trace to such a source. Where true culture exists, it must ever show itself, ennobling the human mind—impressing upon it that the basis of truth is immoveable and imperishable—convincing it of the existence of evidence, and that man’s reason can find it—raising it aloft over that sad intellectual imbecility of our time that confounds belief with opinion, and absolute, immutable, and eternal truth, with formulæ descriptive of some shallow institution—empowering, finally, an exercised intellect, with its shears of polished steel, to cut away those appendages that encumber and conceal a truth, or

which still oftener clothe and adorn delusions so that they lead captive a moral faculty, now more than ever dependent on clear and resolute reason for its aid:—Aye, and this noble temper, this heaven-born and heaven-directing power, I do discern around me working in manifold forms; raising up men from all ranks and conditions to become the very leaven of society: but I repeat, that I cannot, however willing, descry any set of phenomena, entitling me to announce it as a rule, that those *scholastic exertions, or others of a similar kind*, and a manly bearing in regard of truth, are in any shape, in these our days, *necessary concomitants*. I am of opinion, Mr. Sheriff, that, as society is at present constituted, the *teaching of the world*,—practical contact and dealing with the FACTS of Humanity and the Universe,—is incomparably more effective in the evolution of mental culture than the *teaching of the school*. In fact, it is one grand misfortune of our school teaching, that so little of the life we spend with it, so few of its habits—I may even say, so little of its instructions—go with us onward into the world, and assist us there. But the world has its own teaching, requiring the action of all our faculties, disciplining every impulse, demanding caution, patience, honour, earnestness, and sacrifice on behalf of duty. In this struggle, as we well know, there is nothing unreal, or which is only a name. Let a man err, punishment will not turn aside; let him linger—idle by the way-side—it were as well for him to lie down altogether. Do you say that this is no discipline, except for the active habits? Why,

look around you! Point to me that citizen who has reached a name, or even who has borne himself well amongst you; set him to reason on a matter the entire conditions of which he knows; test his judgment, not by the form of its action, but by its result,—and then, if you can, repeat it, that the education of the world does not cultivate the intellect! Rightly considered, it is the great end of society to realise this thorough education, this complete training; it is its first and only rational aim, so to constitute itself, that the mind of each member shall grow into its full value, or, that its powers become, through practical use, capable of their best action; and in *our* society at least, where liberty is not a word merely, but the proud inheritance of the poorest, I venture the apparently paradoxical assertion, that however imperfect this education by *the action of circumstances* may be, it is yet our most effective one—the education which has produced generation after generation of cultivated freemen, and that will evolve thousands more. To pass to examples; was it by the study of Aristotle's politics, or Plato's republic, aye, or of the Greek particles, that the great Captain of our age also came to be a great Statesman of our age? I don't think that the discretion, acuteness, and resolution of Wellington were produced or chiefly cultivated either in these schools or after the scholastic method: for their origin, look to his *life*—his contact with all climes and all characters—the immense combinations he constructed, controlled, and employed in the production of results whose fame is world-wide. I wish indeed that they who have not hitherto exam-

ined the question thoroughly, would review with me the education or training of such a man—as sagacious, self-devoting, and peaceful a hero, as the conflict of principles and nations in modern times has produced; or passing from an instance so venerable, look at another—say the great Merchant—one whose heart, according to the vulgar idea, bends only before its grim idol—GAIN; why, I could show you there, a power whose eagle eye takes in vast combinations of states, calculates on their shifting policies, constructs rules by the very winds, and out of their conflict draws its successful issue. But, Sir, why need I dwell on the existence and beauty of the culture, which even this our own rugged soil affords, in presence of one whose own heart has so often thrilled when touched by the beauty of a peasant's mind, and whose pen—in power never surpassed—has commanded universal sympathy and assent? I know not if the light from a cottage whose picture has arisen at this moment in perfection before me, ever found its way to him—I think it must—for in all its solemnity and sacredness, it was only the reality of many of his exquisite imaginings. Yes, I see it now, exactly as it was; and even the passing thought awes me, for I tread on hallowed ground. It lay in a moor, not far from the old road between Fife-shire and Perth, a little cottage, rude in structure, built by home-taught architects,—simply as a shelter within which two brothers, in constant struggle with the hardest poverty, might obtain the repose demanded by worn-out nature and cherish each other's love. I speak of the BETHUNES. Oh, if the smile of heaven

ever fell direct on human virtue, it rested on that rude cottage, whereto angels were daily visitants, in the shape of duties to be performed! The humble men have left us the history of their life; — I would place it above that of heroes — by the side of the martyr. Never tell me that poverty itself cannot bring the noblest culture, while in my heart I carry the memory of the BETHUNES.—Surely, Sir, I have established at least one point. From the palace to the hamlet, from royalty itself, in form with us so benignant, even to our homely peasantry, I insist that what is termed “mental culture” is but very partially the result of scholastic training—I insist that with regard to the masses of our people, such culture results from the *teaching of the world*, whose happy fulness in our land is synonymous with our practical liberty. To what then do the objections of those who are opposed to us in reality amount? They say that the diffusion of knowledge by popular institutions will not train any mind, or culture any mind, if it cannot exercise its faculties in a certain way: Well, suppose it granted; but we contend also that the minds we address have obtained sound culture otherwise; and that we are only seeking to furnish them with larger views, more accurate statements respecting themselves and great nature—statements on which their meditations will rest, that will arouse noble emotion, and aid them to assert the dignity of Man. I suppose it is meant to be alleged, that the mind in question, because untrained in scholastic logic, will not know what to infer from these novel revelations, and there-

fore will misuse them? But surely this must be a vain fear — one wholly uncalled for and without rational ground—if what I have said be true, viz. that though not coming through logic, sound culture is not absent from amongst us. Nay, I appeal unhesitatingly to my countrymen, learned or unlearned, whether it were possible to collect by ordinary means, into an assemblage like this, any mass of men, whom *the world* has left so uncultured, that they would not *know what to do with any new truth?* Would it have been hazardous, think you, to have unfolded before these humble BETHUNES even the profoundest marvels that science has ever revealed? Now, indeed, they are recipients of light at once purer and more intense. Around the great white throne, they, with others who had also learned on earth to value the gifts of God, are ever growing in reverence as they draw towards their hearts more of its effulgence: but I maintain that, even within that rude cot, there lived men who, no less wisely than the most learned, would have heard new tidings of the glory of the universe, and the majesty of its Creator! Let us not deceive ourselves. In a country so blessed as ours, there is, in respect of culture, less difference at the root than we fancy, between the exercised man of science and the strength and grandeur of ordinary humanity; at all events, it is not possible for me to discern any class, under that great overarching sky, which can be held as an alien. Let us hear no more, then, of the want of this culture, but invite all sound hearts to come in and listen, and meditate on the greatness and bounty of the Eternal.

Would, indeed, that we could send such knowledge to every peasant in the land! would it were possible to console him in grief, and it may be to alleviate suffering, by revealing that even over afflictions, and all apparent confusion and caprice, order and beneficence always reign; that the cloud as well as the bright sunbeam result from merciful and unchangeable laws,—the former, even when it screens from us the face of Him who is the source of love as well as light, only showing forth the perfection and fulness of that love, by providing for those who best flourish in the shade!

III. I trust, Sir, I may be permitted to suppose that I have now stated our case, or rather rendered it not so easy to mis-state it. I refuse to allow that the aim of associations of this kind is simply to send abroad a smattering of incorrect learning, a mere *form* of logic where of *spirit* there can be none; and I hold it a total misapprehension of the character of society, and of the nature of that food which produces substantial vital growth, to measure by the amount of one's exercise in scholastic deductive or inductive processes, the extent of his true culture. I maintain, on the contrary—especially within our own happy realm—that it may correctly be assumed of any assemblage of persons having in view purposes like those we profess—that there is among them, or rather characteristic of them, alike individually and as a whole, certainly as much mental culture, drawn from exercise in the duties of life, as will amply insure a right treatment of any amount of information which advancing science may enable us to

unfold ; and the question, therefore, is, whether it be right, that to such assemblages, or what is the same thing, to the people at large, there be opened means of ascertaining correctly the laws by which events are ordered, and our relations determined with the august scheme around us ? I do indeed believe, that I might with the utmost safety have assumed this to be the plain point on which I had to speak when I began to address you ; but the fact is, one hears so much misrepresentation, and knows of so much misapprehension, to the right and the left, and everywhere, on such subjects, that I desired in the first place to put the matter, if I could, beyond reach of dispute ; and now that I hope to have done so, I feel so strongly that, to the question as it really is, no reply save one is possible, that perhaps I had better hold the affirmative unanimously voted and my task achieved. Is it right, we are asked, that the mind, to which alone, over this entire globe, the inexpressible privilege has been given to ascend to the comprehension of nature's order, should wilfully retire from knowing it : that he, who with fine and unquestionable fitness has been termed a *MICROCOSM*, or image, or repetition of nature, inasmuch as there is not a colour, nor a sound, nor a hue in air or earth, nor a tone from the lark's clear orison to the awful voices of the mountain or primeval forest, not a mystery, from the consummation of the diamond through hidden affinities, to the sweep of the sun and his mightier compeers through the wilds of space—no fact or process indeed which the great universe contains, that may not be represented within

those chambers—rather, I should say, that palace of imagery, which is termed his soul,—Yes! the question even is, whether this being, so fearfully gifted, shall have the access locked, by which knowledge and emotion shall pass between his inner spirit, and that most fair creation; whether, for any reason, it can be right that he stand amid such splendours, only as a *feint*, an image with the form only of senses, and no reality? Has indeed an assertion so strange been ever ventured on in soberness? Or if the old sophism is again brought up, and men begin to speak of the brief time left to the labourer by worldly exigencies, by the toil, and fret, and fever of business, shall it be said that an hour, or even part of it, spent in presence of order, and beauty, and beneficence — beneficence teeming with ceaseless efforts to ensure life and happiness—availeth nothing in quieting the spirit, and realising at least a momentary thought of its inherent and noble destiny. Few can have forgotten those beautiful words of Akenside:—

“ Ask the swain

Who journeys homeward from a summer day's
Long labour, why, forgetful of his toils
And due repose, he loiters to behold
The sunshine gleaming, as through amber clouds,
O'er all the western sky? Full soon I ween
His rude, expressive, and untutored air,
Beyond the power of language, will unfold
The form of beauty smiling at his heart,
How lovely, how commanding!”

Is such a moment lost, think you, merely because it is a moment? Measure the impression as it should be

measured, by its depth, by the secret and unconscious wisdom—hallowed as such wisdom ever is—which has accompanied it, and you will find it should be classed among his moments of prayer. But with such general remarks I must not detain you; as it strikes me there are two important considerations seldom formally stated or discussed, which, however, have much to do with the opinions we form regarding the value and special position of such institutions.—1. It is very well known that, speaking generally, the instruction they purport to give relates to the nature of the great material laws around us; they have undertaken to unfold the progress of external nature, and especially the relations of its Laws with human happiness and duty. Now, Sir, I shall take leave to occupy a few moments in expressing my opinion of the positive importance of these relations; and I shall show afterwards, that if that importance has been misconceived or exaggerated, the error is far from difficult to detect. Unhappily, most unhappily, were it my design to sustain my proposition by striking instances of the evils menacing a society sunk in ignorance of our dependence on the most ordinary of the physical laws of the universe, I do not require to search long for illustrations. Is it needful to recall that harrowing cry from the cabin of an Irish steamer,* wherein, through ignorance, more barbarous in its results than the tyranny which planned the black hole of Calcutta, that latter fearful scene has been, in this enlightened

* An accident, then recent, which occurred in the Irish Channel.

country, bereft of its horrid pre-eminence? It is not long, since, with the aversion due to them, we shuddered at those atrocities, the offspring of French ambition, the suffocation of entire hamlets of Arabs; and yet, within a few weeks, here is the repetition of the very deed, not through plan, but because of a reckless ignorance which, in any enlightened country, one should blush to detect in a child. But this Irish case, fearful though it was, seems not without its palliations: what, however, shall I say to the statement, sent abroad with the authority of Parliament, regarding the condition of our great towns, and the insuperable difficulties lying before rational reform? Can you suppose it possible that, if the case were understood, a set of men in London claiming to be deemed "respectable," "good citizens" in short, and "well to do," with their private feast on Sunday, and their carriages to ride to church in, could in face of humanity plead their vested interests in the practice of destroying ten or twenty thousands annually of their fellow-countrymen?*

And yet it is certain, as any such proposition can well be, that at present this claim of theirs has not been made merely, but enforced, and is in triumph! Let us pass, however, from isolated illustrations, and look at the case more thoroughly — at its root. In the few words I am now about to say, I beg it to be understood, that I assume in man a sense or principle of duty — be it derived whence it may, whether from Education as some say, or from a Moral Faculty, according

* Reports of Sanitary Commissioners.

to others, or from the effective growth within him of a Spiritual Religion. The origin of the principle I leave at present not investigated; but assume that the principle exists, urging us towards the culture of certain emotions towards man and God, and the performance of the duties or acts corresponding. With this as our ground, let me advance a step farther. It cannot be denied that Man, alike as an individual and a member of society, spends his life within this material universe, affected at every moment by its order and laws. Now, I ask you how it is possible that he can *realise* his feelings of duty, that he can truly and intelligently obey the dictates of this moral sense, unless he knows whether he is in accordance with, or in contradiction to, those fixed processes which I may truly say, carry his intentions out into *acts*? It is never to be forgotten, that a wish of ours, a mere throb of the heart, or a thrill of our nervous system, does not, and cannot, take effect for the weal of our neighbour, instantaneously or purely; we must ever employ the natural laws as the ministers of that will; and—as their course is not formed by man, but fixed for all the universe by a Being who knows its whole mechanism, seeing it is his work—it appears self-evident, that unless we delegate to those laws, actions in agreement with their own course, our *Will*, be it never so beneficent, cannot reach the form of a beneficent *Act*, but must be thwarted, and fall down effete. So plain, Mr. Sheriff, does this seem to my mind, that at few things have I marvelled more, than on hearing that any

statement of it, could give occasion for a question; and no consideration I know of will restrain my heartfelt gratitude to those men of our time, who, with patience most remarkable, accuracy unquestioned, and a disposition towards good which no one can impugn, have brought within the comprehension of every cottager, how beneficently the action of God's material ordinances might co-operate towards the happiness and elevation of our race.* If in this strong and most warm expression I have aught exaggerated, tell me, ye Mothers, to whom the thoughts of one accomplished, and most warm-hearted man—now, as I deeply grieve, no more—have opened to you stores of wisdom, which more than all Ophir you prize, saving through your reformed and now instructed treatment, the infants whose earthly guardians ye alone are, from many a searching pang! Alas! enough yet, will these infants experience of evil! No power, I fear, can rescue them in their sad but inevitable frailness, from subjection to the doom of humanity; but what could more wring the maternal heart, than a scathing revelation, that many of the griefs she wept over, sprung from her own unacquaintance with the unalterable circumstances—unchangeable as decrees of Medea or Persian—within which mother and infant hold their existence, and by which their relations are established and defined? The application of the case is universal. Over high and low, weak and powerful, decrepid age as over fragile infancy, lie

* I chiefly refer to GEORGE COMBE, and his late brother Dr. ANDREW COMBE.

those immutable conditions of human existence; and from opposition to them, or their neglect, be it through ignorance or reckless defiance, one only result can issue—misery in some of its guises, physical suffering, concomitant mental depression—for who can contend with God? You spoke, Sir, in your opening address, of the importance of a rational employment of those leisure moments, those odds and ends of time, as you graphically phrased it; but you did not thereby exclude the graver considerations I am seeking now to urge. I cannot regard institutions like this, valuable though in that respect they are, merely as affording an opportunity to spend, in elevating contemplations, seasons otherwise most likely to be unprofitably consumed; I look on them as an accessible means by which grand and serious defects in our early education may be lessened, if not removed; and I trust that ere many years pass, we shall discern as one of their consequences, the general recognition of the great fact, that alone through knowledge of the laws and order of nature, can a being living within that order, learn to throw into fitting external acts the impulses of his duty. If, indeed, this idea were appreciated aright, changes would ensue in the most important portions of education, whose effect it were not easy to estimate. For instance, has it yet been dreamt of amongst us, that to guide our children, to watch their tempers, to correct and amend them, we must understand many of the secrets of their physiological development; take heed of the influence of life's regular *crises* on the nervous portions of their frame, and seek often there,

especially at the periods of such crises, the exciting causes of melancholy, irritability, intractableness? It is indeed not to be gainsaid, that in neglect, or rather ignorance, of what I have now referred to, lie the causes of many a wretched life; and is it not most strange, that in the existing state of British civilization, any one should doubt the utility of attempting to remove such ignorance? I cannot refrain from alluding to one cause at least, of the discredit in which I have often found the effort to insist on the study of the laws of nature, as a source of light in regard of human duty. This cause is most grave; but we are discoursing with every earnestness on things vastly affecting happiness, and in all frankness I shall deal with it. It is undeniable, that mention has been made of the word "*materialism*." I hold, Sir, a maxim on this matter which personally I have felt of exceeding consequence. Materialism never arises from *knowledge*; it is, on the other hand, a certification of *deficiency*, on the part of the mind cherishing it. It consists, not in the exposition of any positive knowledge, but in the dogmatic assertion, that beyond the line of such knowledge there lies nothing more. To deal with materialism, then, what is our course? Never to deny or undervalue truth distinctly laid down, but to deny that what is known is a *limit*; that the system pretending to be every thing, is, whatever its special value, the *every thing* it pretends: not to imagine that man ought not to study the laws of Nature, but to show him that beyond these, towards the region of sunset, there are powers which made and sustain even the

entire of nature's fabric—an august Being—even the Father of our spirits—with whom, though the seasons change, and those stupendous orbs rest not in their courses, there is never variableness or shadow of turning.

2. There is however a second point of view, from which I conceive that our Association, and others like it, may be commended. But to carry out the views I shall now indicate, the sphere of the instruction they aspire to afford, ought not to be so strait as it has nominally been. I cannot, indeed, discern why we should institute a restriction confining our mutual communings to mere *physical* science—thus excluding that wide, and in many respects more deeply interesting, domain of History which explains the grand unfoldings of human Society, and also much of the domain of Literature. I am far, as you will readily believe, Sir, from recommending that at such meetings, subjects should be discussed belonging to the ephemeral disputes and transient parties of the day; but I would impress the great good necessarily connected with the discussion, in hearing of the people, of many of those fixed and comprehensive principles, on which modern societies are based; and still farther, with truthful representations of the condition of societies in former times. The grounds of my opinion as to such matters are very simple. That immense and peculiar fabric within which we live and act, may not inaptly be compared to a great and complex machine, whose general purpose is one of breadth and dignity, but whose separate parts have only functions

the most limited and mean. This state of things, Sir, it is far from difficult to realise. Think, for instance, of one of those wonderful structures defying wind and wave, pushing through the ocean reckless of its menaces, and establishing, in spite of their separation by large intervening spaces, a bond of amity between all dwelling-places of man. How august, and almost unparalleled, such a purpose! And yet analyse that machine—it consists, you see, only of rods, and wheels, and cranks; such as, separately, are equalled in any homely workshop. Or, again, trace the growth, the construction of that stupendous tube, by which an illustrious Irish nobleman has just carried the vision of our race through depths of that azure, to hear of which stuns the imagination; and yet what is it? There is nothing whatever, in its separate portions, indicative of such an aim, far less that can establish any probability of its fulfilment; and, Sir, I do think it would be very difficult, if one were looking simply at the separate portions let me say, of British society, at large classes of her operatives, whether manufacturing or agricultural, to ascertain for what high end this singular organization can be destined, or what share in it can well be apportioned to the workman, confined by the action of that singular principle—the division of labour—to the unceasing repetition of some simple act. It were useless to deny, that in so far as the repetition of the day's work goes, these masses are but cogs of some wheel, doing their specific duty with astonishing regularity, and unsurpassed excellence; but in one momentous point the illustration fails; for I ask if

it be right, if it be well, nay, if it be safe, to permit that, as with arrangements of inert matter, they continue unconscious of the position they occupy as integrants of our entire and complex society—that the monotony of this labour be not lightened, and its degrading effects relieved, by infusion into the mind of the workman of enlightened views as to the *end* of his repeated toils—the working of the wonderful mechanism to whose success he is contributing—the nature, in short, of that vast industrial commonwealth—one of the noblest combinations hitherto ever evolved by providence for the elevation of our immense family, and of which each workman is an essential part? We talk of patriotism,—aye, and ere those burning words fall dead among our peasants' hearts which to-night so aroused us, may the tongue that now speaks to you long have been silent!—We talk of patriotism, but how are you to sustain it—how are you to provide for its freshness, its growth *to-day*, as well as in times from which it has come down as a hereditary glory, unless it be believed among those multitudes thronging up around us, that through the accident which gave them these lands as their natal soil, they have a right to the great name of Britons—that in all which gives this Empire its dignity and potency, they partake as a birthright, and that our country holds and esteems them as its industrious sons. Beware, Sir, of language that in a most unhappy moment once went forth from the closet of a man, who, because of his own practical benevolence, and unimpeachable purity, understood not their fearful intent. If the

time shall ever come wherein these words shall in seriousness be repeated, and the multitudes I speak of be assured that "*the banquet table is full!*"—No—I will not pursue the impossible supposition: but I warn you that it will be only a little less disastrous, if we continue to treat them virtually as helots—taking the fruit of their toil, and not regarding the *co-operation of their will, their affections, their emotions*;—then all patriotism, all national feeling, though, like the mantle of Elijah, bequeathed by men and deeds heaven-inspired—all must cease, and leave you instead, a machinery to be kept together by inert external force alone; inasmuch as the internal self-sustaining principle of life has departed. And why, I beg to ask, ought we to ostracise discussion, exposition, mutual intercourse, on matters of moment so high? Is it that we may not *all agree* about them? And when, I should like to know, did Scotchmen become so thin-skinned that they cannot listen to an opinion different from their own? If that strange change has taken place, then surely we are no longer what all men say we have been. It used to be held as a maxim, that where you find a Scotchman, there you find an *argument*: and I do not recollect of hearing it added, that the argument, the speaking at least, must be all in one way. If this, Sir, or any thing like it, is the cause of our banishing from these halls, instruction and disquisition on matters so vital, we are indeed committing a most lamentable mistake, manifesting, it may be, sufficient attachment to opinion, but thinking little of the respect due to honest inquiry, which is the leal

offspring of love of truth. But perhaps the hesitation comes from a feeling of another description. There is no use in disguising it, that over and over, from this side and that, comes the cry, when subjects of this kind are touched on, *of danger from discussion*—danger the more threatening in appearance, because it is seldom coolly examined—because it is seen through a *mist*. Now, I claim that the persons so afraid, do quietly but earnestly look around them through this modern world. So little do I partake of the apprehensions possessing them, that, as I have argued, if you are to avert from the future the reign of the sword, you must obtain the assent, the good-will, of the masses, and show them that in the strongest bonds, we and they, co-equal citizens of this great Empire, are working to evolve the vast purposes it has in charge. As to apprehensions concerning the future, *who* indeed is unaffected by them; who, save some hot-blooded or hair-brained enthusiast, can in this perilous epoch prophesy only of smooth things? But how are you to calm these apprehensions? Is ignorance your ark of safety? Have you then never heard of the Jacquerie, and is that your model of a safe and satisfied people? Did ignorance in Paris keep down communism; or which way think you the best to deal with social difficulties—by good honest Scotch arguments, addressed to acute minds—or by bellowings from the cannon's throat? Amid the confusion arresting all progress, and absorbing all liberty, in that neighbouring land, there occurred one incident bearing on this question closely, which I believe will survive

and be carried to the remote future. After that dreadful devastation of June, which gave Paris a temporary peace, the brave and thoughtful soldier who had concluded a most distressing task, summoned to meet him the Academy of Sciences—an academy consisting of the most illustrious thinkers and writers in France: and he thus addressed them:—“Gentlemen, peace has been obtained,—the sword in the mean time is victorious. But the sword cannot keep that only peace, which has the blessings of peace, viz., peace growing out of satisfaction and internal harmony. The agent now required is the pen; I summon you therefore to save your country. Address yourselves to the complete examination and discussion of our social state; discover its evils, and proclaim your views; suggest remedies if you can—at least alleviations.”—As far as my knowledge goes, such words never fell before from any dictator; they contain the heart of all successful modern statesmanship; and they will not be forgotten when future times shall make up their estimate of the character of CAVAIGNAC.

I must now, Mr. Sheriff, close. But there is one other subject, on which I would hazard a final remark. It refers to what I consider vital as to the management of this institution; suggested by much I have seen elsewhere, and to some extent related to what I have just adverted to. I would impress alike on the directors and members of this re-invigorated, and I fondly hope enduring School of Arts, that if they earnestly desire success,

they must in no wise, and on no occasion, overlook or forget one condition essential to all success—a condition inseparable from the idea that good and elevated objects, are to be realised by the power of ASSOCIATION. It is one thing, recollect, to act individually, to aim at accomplishing results by one's separate personal strength; but quite another, to seek their accomplishment through aid of association. In this latter case, all arguments, all modes of action, must be shaped to meet the approval of a number of men; and personal wishes must yield. Now, it is right to see at the outset how far this yielding ought to go, lest we blindly undertake what afterwards will be found disagreeable, and injury to the organization be the result. Sir, I cannot go fully into this discussion—nay, it is only persons connected with the locality that could do that; but I wish to point out one or two hazards, and to allude to some matters which, unless when the last days of your Society shall arrive, must not be brought up or even named within its halls. In the first place, I again beg to warn, alike members and directors, against any extraordinary solicitude that nobody shall ever speak or hear any thing that may either be, or seem to be, or be thought to be, contrary to certain specific maxims which some men—say the *directors*—have been in the habit of standing by. I know, Mr. Sheriff, that here I am on something like ticklish ground. I know that when a man stands up all his height, and pleads for indulgence to what Bossuet called “variations,” it is rather often the case, that he is really pleading under cover for some quiet heresy.

of his own; just as when you hear some persons great and loud about Galileo and so forth, you are pretty sure that they indulge some respectful, bashful notion, that, rather than otherwise, they are themselves modern Galileos—inferior editions, perhaps, but still of the kin of the Galileos. Now, Sir, in so far as this goes, I do aver as to my honesty; for I indulge no heresy for which I need protection: and assuredly any efforts of mine have been so received that I cannot claim the distinction of having ever been persecuted. I am, therefore, pure in court: and speaking from such a position, I beg most earnestly to warn the members of such institutions against undue fastidiousness in this special direction. What harm, I again ask, if you happen to hear something with which you cannot agree? Is your hold of your position so weak, that by the wind of another man's mouth you can be blown from it? Or can you think so meanly of the relations of those around you to what they hold to be truth, as to suppose that the intimation of an opposite view—it may be the incidental intimation—by some one to whose discussion they listen, will tear them from their moorings? It is time the truth had gone forth, to be held as a maxim for evermore, THAT IN PROPORTION TO THE DEPTH OF ONE'S FAITH, IS THE ABSENCE OF UNEASINESS BECAUSE OF DIFFERENCE OF OPINION. I agree, indeed, with all practical men, that there are important rules of prudence in such cases. I am not asserting that, on points with reference to which the different classes of our people hold scrupulous opinions,

it would be right, or in any way useful, to set up discussions in halls like these: but far within that, there lie many important questions. Suppose, for instance, we are all seated in a board-room, and some one is proposed to lecture on a matter of proper consequence,—“Ah!” says one, “he is clever, but I am not sure of him.” “Oh!” says another, “it is a pretty subject, but what will he say as to this part of it?” “Well,” says a third, “I have reason to suspect that he will treat the tenth part of one of his propositions, not in the way that Mr. So and So would like, who, yesterday, told to me his thoughts concerning the twentieth part of the whole!” Do not fancy, Mr. Sheriff, that I am in the least exaggerating, nor imagine that, because I have put them as absurdities, these things are not dangerous. I tell the members of this Institution frankly, that in this very direction lies their chief danger; and that for them there is only one line of safety. Adopt as your rule, “FORBEARANCE,” and “MUTUAL TOLERATION.” As to the subjects of discourse, select important ones, and choose to treat of them, those whom you can procure who best know them. And if you feel it necessary, act like our higher scientific Societies—declare, very solemnly, that the council does not undertake the responsibility of guaranteeing the views brought forward; and then, surely, your consciences need not be scared by any observation of the lecturer! You thus save yourselves with your worst critics—with those, I mean, who in the course of their lives have done nothing more than accept what has been told them: and de-

pend on it, that they who have longed for truth, and laboured hardest to reach it, will not shrink from listening to the views of another earnest man who has laboured also. I would indeed speak gravely on this matter: I might easily refer to much that has happened before—that has ruined admirable institutions—that may happen again even here, and add your promising association to the list of efforts that bore nothing except a promise—that held one splendid meeting, but never could get up another. If there is a shadow of truth in aught I have said to-night, nothing of it has a higher certainty than the following caution:—“*Mix not up your Society, directly or indirectly, with the church or religious politics of the time; never permit yourselves, while judging of the qualities of a candidate for a seat in your direction, to ask of yourselves even, to which of our various sects or churches he belongs; if you do, I prophesy for you, without the slightest misgiving, that this Institution will have no protracted existence.*” There must be no paltering, or only half sincerity, on this point. It is easy to see that the church with which a man worships, ought never to be a reason for holding him unfit to sit at the board of a Society like yours; but neither ought it to be a reason *why he should be there*; and whatever may be the talk, it will, I assure you, be quickly discerned, whether this latter consideration has become a turning point in elections. Now, just look at this matter for a moment, and observe the certainty of the worst consequences, if a mistake in policy so grievous shall be committed. I suppose, Mr. Sheriff, I need not pretend

ignorance that this good Stirling of ours has never been remarkably passive when church contests were afloat; but passing that, I shall merely assume, that in that respect we are at present neither better nor worse, neither quieter nor bitterer, than other people: well, then, going no farther than that, will any one in this assembly frankly inform me what would occur, if any special church imagined and organised an institution of this sort—of course with modifications—and laid its programme before the public, declaring, while seeking aid and encouragement, that likewise, it had resolved to *conduct* and *control* it? Which constitution, Sir, would be the best for such a Society; the one I have now roughly put into words, or that which your Institution at present enjoys? Tell me, then, with what rational measure of hope any Church could, after you have laid liberal and catholic foundations, undertake to provide for its success, by, in the first place, assuming or wresting from all others its management? I am assured that, in nowise, not a least except in the most temporary manner, would success result from a species of action scarcely justifiable, inasmuch as, in the first instance, a pledge is virtually given on behalf of the catholicity of the Society's constitution. But still further, what would success, even though attained, specially avail, on account of that new special administration? What good can be assured, or what evil prevented, by the subjection of a School of Arts to the surveillance of any one sect, which would not have been equally attainable through the guardianship of worthy men—

men of standing and recognised value in the community — associated without a word being said or thought as to their churches? Let me not be held as one who is disposed to treat with indifference the lines of demarcation between our sects. To do that, were to misread the history of our native land—to be blind to the purity of many of the brightest gems — the deeds, the life, and sacrifice of its heroes — that have adorned and consecrated the development of any people! But what have such lines of difference—what have all such questions—to do with our associated efforts to seek wisdom in fields so different, to open and instruct the senses, so that intimations from that gorgeous materialism may not, at the very entrance to the temple of the mind, find unwilling or unqualified recipients? I repeat, Mr. Sheriff, that the subjects now offered to the thoughts of my audience, involve the most serious issues. Judging from the very accessible signs of these times, who can tell whether the entire scheme of the future education of this community — from the humble parochial school to the more advanced lyceums—is not to depend for its fate on the direct determinations of parental affection and patriotic forethought, expressed in primary popular assemblies; and will it not be lamentable if attachment to feelings which are the most sacred in a Scotchman's bosom, shall prove the *fatal* means of exciting discord and division—withering an arm so powerful to expel false gods, and help our Countrymen to discern the true altar? Alas, Sir, if that error shall triumph! Alas! if our

Nation must be subservient to its Churches, instead of our Churches concurring in all methods of ensuring its advancement and elevation! Alas!—if such be the light that is in them—for the issue of that conflict with a mysterious, but visible pestilence striding gaunt and fleshless across our land; a pestilence, whose skeleton is ignorance, with vice—a gnawing cancer—as its heart, restlessly craving for spoils; a pestilence never asleep, drawing myriads towards dread and insatiate death, and debasing myriads it cannot hold, its maw being full, accumulating, within the free boundaries of our native land, dark and surging multitudes who venerate not her imperishable name, because they derive so little from her greatness.

[Professor Nichol desires it to be stated, that the foregoing address was not prepared with a view to formal publication, and that it retains its original form, as reported from rough notes.]

ADDRESS

DELIVERED TO THE MEMBERS OF

THE GLASGOW ATHENÆUM,

ON THE 21ST JANUARY, 1851.

BY HIS GRACE THE DUKE OF ARGYLL.

LADIES AND GENTLEMEN,—When the Directors of this Institution did me the honour of asking me to preside on this occasion, and when they further kindly enabled me so to fix the time, as to be consistent with other engagements from which I could not escape, I felt an injunction was laid upon me which it became my duty to obey. I felt this for more reasons than one. In the first place, although I have not the honour of being one of your citizens,—although I have seldom spent more than some few hours at any one time within your walls,—although this is only the second occasion on which I have appeared here in public,—nevertheless, I cannot help feeling that I have somewhat of a peculiar connection with the city of Glasgow. I will not seek to justify this feeling by alluding to any connections which may have existed in former times between this city and those who have gone before me. I will not seek to justify that feeling from the mere

general fact that Glasgow is the commercial capital of the west of Scotland, and that with the west of Scotland all my own personal interests are connected. Neither will I seek to justify it through those annual migrations, by means of which I have long had a partial acquaintance with the citizens of Glasgow: for of course you are all aware, that a few miles down the way, as regularly as the coming of the swallow, another coming is expected,—a coming of those whom I have been accustomed to hear sometimes called the *saut water folk*—and I may add, that this coming to some of our friends in that direction unites something of the pleasures of spring, with something also of the fruits of harvest. I will seek to justify my connection through another channel. Sir Walter Scott, I think, in one of his novels, remarks that the Scotch have a peculiar feeling and respect for their great rivers. Now, ladies and gentlemen, I have been born on the banks of the Clyde; and with its name all my associations of home are connected. To be sure the Clyde, where I have been accustomed to regard it, is not exactly like the Clyde in the city of Glasgow,—its waters have expanded, and its banks have risen; but I think we shall be able to come to an agreement as to the honour to be paid to the different portions of that noble river. You, ladies and gentlemen, citizens of Glasgow, will doubtless agree with me, that so far as natural beauty is concerned, you must either go a few miles down or a few miles up its course, because I must confess that the quay of Glasgow is to me but a ghastly recollection of a “broomy lea,” from which,

doubtless, it originally derived its name. On the other hand, most willingly do I acknowledge, that that portion of the Clyde which renders it a familiar name in every part of the civilised world, is not that where it washes the foot of the Highland hills, nor there where it is cradled amidst rocks and waterfalls; but here where it first meets the waters of the sea, and the commerce of the four quarters of the globe converges to the quays of Glasgow. Well, but there is another and a stronger ground—for you may think this somewhat of a fanciful and poetical connection—upon which I felt it my duty to attend here on this occasion. When I cast my eyes over the pamphlet I now hold in my hand—namely, the statistics that have been drawn up by your City Chamberlain, Dr. Strang, as to the population and progress of Glasgow—what do I find? I find that, during the fifty years which have passed from the beginning of this century, not only has Glasgow increased enormously in wealth and population, but the *increase* of that population has amounted to a larger figure than the *total* population of some of the greatest cities of the empire. At the beginning of this century the population of Glasgow was only seventy-seven thousand some odd hundreds. At present it is estimated—and I am told that the estimate is more likely to be within than above the mark—at somewhere like 376,000 souls—from 77,000 souls to 376,000! I suppose we may safely take it for granted, that during the present century Glasgow has added to its population 300,000 souls. Now, let me ask, when you cast your eye over such figures as these,

what thoughts do they raise in your minds? I will tell you what thoughts they raise in mine. I cannot help foreseeing that this mighty mass of population must exercise a great, possibly something like a commanding, influence on the character and destinies of our country,—on that portion of our country, at all events, of which this city is the great commercial capital. Then let me ask, is this population increasing not only in wealth and numbers, but also in moral worth and in intellectual cultivation? Is this mighty heart, beating so high with the pulse of human life, beating also as high with every generous sentiment, and moral and religious feeling? Of this vast population can it be said, that it is not only growing in stature, but in favour with both God and man? If it be so growing, then all I can say is this, it must be through the strenuous and active endeavours of all who are its citizens—of all who have any influence within its walls, of all who have any position in society, through which they may work for good and for the counteraction of evil. This, then, is the ground on which I have felt it my duty—and doubtless the strongest ground—to take my place in this meeting according to the request you have done me the honour to make.

Now, ladies and gentlemen, I shall not waste the time of this great meeting; for I confess I think it would be wasting it, to answer any general objections against the cause of education as opposed to ignorance. I do often think that those who address such assemblies waste their time unnecessarily in unduly combating

this objection, an objection that does not exist. I know of none, in any party of men, who support ignorance as opposed to education. I have always had some doubts whether any such men ever existed. At all events, they have not existed in my day, which has, however, been but a brief one, or if they have, they have now gone out as completely as hair powder and bag-wigs. Well, but are there no real objections with which we have to contend in the support of such institutions as this? Yes, there are objections, perhaps more frequently felt than expressed. Now, what are these objections? I have myself, in my own experience, short as it has been, found that many excellent and thoughtful men do,—not so much oppose such institutions,—as withhold from them their support on several grounds. First of all, it is said that the knowledge which is acquired in such Institutions as this, is, after all, but a scanty and superficial knowledge. In the next place, it is said that too often this knowledge is purely intellectual, and is neither moral nor religious in its character. Now, ladies and gentlemen, with regard to the first of these objections,—the superficial character of the knowledge which is to be gathered in such institutions as this,—there is one mode of cutting short the difficulty to which I might resort under very high authority. I might deny that it is true that any danger accompanies superficial knowledge,—or I might take the ground that no knowledge can be absolutely condemned as superficial knowledge,—or, rather, that any amount of human knowledge may be called superficial, if viewed with

reference to that vast amount that yet remains to be discovered. But I will not take this ground, although, I repeat, I might do so under very high authority. At a meeting of an institution similar to this, held some years ago in Edinburgh, no less eminent a person than Mr. Macaulay took the ground I have now faintly outlined. He illustrated it with all the richness of that eloquence and fancy so peculiarly characteristic of his distinguished genius. He told the people of Edinburgh that they must remember, that the knowledge which was the profound knowledge of one age, was the superficial knowledge of the next,—that the knowledge of geography, for instance, which made Strabo entitled to the name of the Prince of Geographers, was infinitely less than that now possessed by every young lady at a boarding-school. Such, with an exuberant variety of illustration, was the answer he made to the objection urged against similar institutions on the ground of superficiality of knowledge acquired in them. Now, I frankly tell you, that this does not satisfy my mind. I feel somehow or other as if the eloquence of Mr. Macaulay were used on this occasion rather for the purpose of covering a fallacy, than protecting a truth. I agree with the most able and admirable essay published in reply to that speech by Professor James Forbes, of the University of Edinburgh, that Mr. Macaulay fell into the grand mistake of measuring the superficiality or profundity of knowledge by its mere amount, as compared with the amount which still remains to be discovered, rather than by the *mental discipline* through

which our knowledge may be acquired. All knowledge which you have acquired without any thought or difficulty of your own is superficial knowledge, no matter what its amount may be. It is not the same thing that you should be able to follow the discoveries of Sir Isaac Newton, and that you should have been able to make them. You may *know*, in a sense, every fact which he brought to light, and yet that may be knowledge wholly superficial, although such cannot have been the knowledge of the original discoverer. Therefore I reject the answer referred to, as an unsound answer. It does not satisfy my mind; and, considering it does not satisfy my own mind, I should be dishonest if I took refuge under it for meeting the objection felt by some against institutions such as this. But there are other answers which I would substitute for this. In the first place I acknowledge the fact that superficial knowledge may be dangerous. There is nothing that man possesses that is not dangerous—that may not be turned to evil—that may not be turned to good, according to the use we make of it. But I would ask those who object to institutions such as this, on the ground that the knowledge acquired in them is superficial, do they expect the knowledge which young men are to acquire in the streets, and with their boon companions, will be *less* superficial, and accordingly less dangerous? I should apprehend not. It must be *more* superficial, and accordingly more dangerous. Well, then, there is another ground on which I say these institutions should be supported. If you dread that the knowledge imparted in this

Institution may be superficial, and therefore have an injurious effect upon the mind, then, I say, let all good men come forward and try to direct the studies of their fellow-men, that they may not be superficial. Again, if you dread that their reading will be purely intellectual, and not moral, or not religious, then, I say, come forward all of you upon this platform, and tell the people of Glasgow, and the people of all the other cities in which such institutions may be established, that you will do your best to direct them to a better reading, which will be more sanctified to their religious, as well as more profitable to their intellectual nature. Now, I find, on looking at the documents connected with this Institution, that it is distinctly stated in the prospectus that the object of the society is to excite, especially among young men, a taste for intellectual and elevating pursuits, and to secure the means of its gratification by affording facilities for "*systematic study*"—not for the mere acquisition of facts, but for the "*systematic study*" of these facts—that the young men may be trained in the discipline of their own minds, and in the various branches of useful knowledge, combined with opportunities for indulging in healthful recreations. I am aware that this Institution is not of the nature either of a school or of a college; but, nevertheless, it is admirably adapted not only for the amusement, but for the instruction, of the young men of Glasgow.

Now, if there are any ladies and gentlemen here present who are not immediately connected with this Institution, I beg them to excuse me if, instead of

addressing them, I go past them, and address those for whom this Institution was established. I do so because I have come here with a higher purpose than that of making a mere after-dinner speech. I have come here for the purpose of stating to the young men of Glasgow, with all respect and humility, the opinions which I entertain with regard to the direction which their reading ought to take, with a view to the improvement of their own minds.

Now, the first advice which I would give to the young men of Glasgow would be this—not to spend their time too much—I lay stress upon the words “too much”—not to spend their time too much in mere newspaper reading. I should have given this advice at any time, and upon any occasion on which I might have appeared before the citizens of Glasgow with a similar object in view; but I have a particular desire to give this advice upon this occasion, because at a late meeting of a similar institution in the city of Manchester, a person very eminent in the political world—I mean Mr. Cobden—gave a directly contrary advice. Mr. Cobden told the young men of Manchester, if I recollect his words, that no reading could be more useful than that of newspapers. Now, with all respect for Mr. Cobden, I wholly differ from such a sentiment. I do not wish to undervalue the high character and the very great ability of the better portion of the British press. In that character we are all deeply interested, and we should be ungrateful if we did not acknowledge that that character does stand high. I will not hesitate to say, that there are articles con-

tinually appearing in the daily press which, for vigour of expression and for grace of composition, are equal to the best specimens of English literature. All that I would say is—and I again repeat it—do not spend “too much” of your time in newspaper reading; and I give that advice upon this ground, that the knowledge which you acquire from newspapers is necessarily more or less of a desultory and superficial character. I would say, then, to the young men of Glasgow, if you wish to be living always in the present—if you wish to have the din of its contentions always in your ears, and the flush of its fleeting interests for ever on your brow—above all, if you wish to have your opinions ready-made for you, without the trouble of inquiry, and without the discipline of thought—then, I say, come from your counting-houses, and spend the few hours of leisure which you may have in exhausting the columns of the daily press; but if your ambition be a nobler one—if your aim be higher—you will find yourselves often passing from the door of the news-room into that of the library,—from the present to the past,—from the living to the dead,—to commune with those thoughts which have stood the test of time, and which have been raised to the shelves of the library by the common consent of all men, because they do not contain mere floating information, but instruction for all generations, and for all time.

I hold in my hand a return, with which the Secretary has been kind enough to furnish me, showing the number and the nature of the volumes which have been given out of the library to be read by the

members of this Institution. I think it an interesting and instructive return, and I must say that, upon the whole, it gives no unfavourable impression with regard to the literary tastes of your city. The return is only made up for three months; but it is sufficient, I am told, to give a fair idea of the average distribution of books from the library. The total number of volumes given out to be read during these three months was 7,000, and a few odd numbers.

First of all, taking the largest item, I find there is put down to the head of works of fiction no fewer than 2,434 volumes; that is, not to a very considerable, but to some extent, above one-third of the whole reading of the members. Now, upon this I would only say, that I am not prepared to say decidedly, without looking more into details as to the nature of these works of fiction,—I am not prepared to say that this is altogether an excessive number, considering the nature and character of many works of fiction. The pleasures of imagination will ever rank high with the great mass of mankind; and it is not merely the pleasure to be derived from works of imagination, but the positive instruction to be derived from the better class of such works. Now, for instance, I have just been referring to the immense progress which this great city has made during a certain course of years, taken from the beginning of the present century; but there are other modes by which we may estimate, even more forcibly than by the figures of Dr. Strang, the progress which has been made during a short time by such a city as this,—by every part of the country,—

indeed, by the whole social fabric of Great Britain. It would ill become a countryman of Sir Walter Scott's to depreciate the value of works of fiction. The name of that great Scotchman reminds me of another mode by which we may form a very correct idea as to the progress of this great city during a period somewhat longer, but still comparatively short. Compare my right honourable friend, the Lord Provost, with our old acquaintance, Bailie Nicol Jarvie. During the last few days several communications have passed between me and my right honourable friend, the Lord Provost of Glasgow, but they have not been exactly of the character for which his excellent predecessor, Bailie Nicol Jarvie, had to give an apology to his English visitor,—an apology for holding communication with another personage, with whom, by the bye, some of my own ancestors were supposed to be rather too nearly connected. You will probably remember, that when the worthy bailie was questioned rather hard by his English visitor as to his connection with that certain personage, he answered with this, "If the law canna protect my byre, what for may I no engage wi' a Hielan' gentleman that can?" Now, this has not at all been the nature of the communications which have passed between my right honourable friend and myself during the last few days. I have come under no engagement to protect his byre; and really I do not know any way of presenting so vividly to our minds the great advances which Scotland has made in little more than a century, as by contrasting the state of society as given in the pages

of Sir Walter Scott with its condition now, or the picture of Bailie Nicol Jarvie, which I believe to be true to the life, with the present Chief Magistrate of Glasgow. Well, but it is not merely as regards the past that works of fiction have been found of great value. Let us look to the present. I cannot forget that this Institution was presided over, about three or four years ago, by Mr. Charles Dickens, of whom I would say, that he has dived into the recesses and depths of our social system, and has brought up pearls indeed. His works have a high moral tendency; there is not one of them that does not tend to make vice more hateful, and virtue more loveable.

The next item which I find in the library returns is, as you must of course have expected, Reviews and Magazines. Now, I have only to say to the young men of Glasgow, that, to a certain extent, but not to so great an extent, the same observations apply, in regard to this class of reading, which I have already addressed to you in reference to newspaper reading. It is, to a certain, but to a less extent, superficial, and especially it is desultory reading. You go from one subject to another as rapidly as the pages of the Magazine or Review can carry you; and that is just the style of reading which I would recommend all young men, who value the discipline of their own minds, to use with caution and moderation. But I shall say no more upon this head of the library return, and shall merely state that the number of Reviews and Magazines given out to read is 1400—a very large proportion of the 7000 volumes.

The next item I find is Voyages and Travels, which is an extremely interesting and very natural study for men of all ages. We have all something of the gipsy in us, and if we cannot travel ourselves, we take delight in following those who can.

The next item is a more important one—History and Geography. Of these 690 volumes have been issued. I hardly know whether I ought to say *only* 690, which is but a comparatively small proportion of the total number—7000. Now, I need hardly impress upon the young men of Glasgow, that a competent knowledge of history is the foundation of all useful knowledge of men or of affairs. There is nothing in the present which has not had its roots in the past; and I could mention several questions, if time permitted me, or were this a fitting occasion, on which the public mind of this country, at the present moment, is expressing itself in forms, running in channels that were cut, by the force of circumstances, centuries ago. It is a specially valuable part of historical reading, that it tends to enlarge the mind, and to familiarize us with the ideas of other times, with other circumstances, and with other men. It gives us, in short, what many of us could not otherwise enjoy—an extensive knowledge of the views, and opinions, and habits of thought of men placed in different circumstances from ourselves. It affords us great enjoyment, enlarges our minds, and transports us to distant times and to distant ages. Scotland, during the last year, was visited by a very eminent historian from the United States. My friend Mr.

Sheriff Alison had the honour of entertaining him, and so had I—I mean Mr. Prescott, the author of the History of Ferdinand and Isabella. I ask you to attend to the circumstances of this gentleman. He is labouring under a personal infirmity, which prevents him having that intimate and extensive knowledge, at least through the same media, which other men acquire, by being able to devote their leisure hours to the reading of books. He labours under an infirmity of sight, and can only, therefore, use in his writings those materials which he gathers from the reading of other persons. Mr. Prescott is a republican, born in the great republic of the West, accustomed to republican ideas in his own country, and imbued with all the spirit of republican patriotism. Look at the effect which historical reading and historical study have had upon his highly-cultivated mind. He has presented to you and to Europe a history of the reign of Ferdinand and Isabella, written with great brilliancy of imagination, and with all the warmth of heart and loyalty which you might have expected in a cavalier or a courtier of Queen Isabella herself—so that by following that history, you can enter into the spirit of that time, and have your interest as much excited as if you were reading a tale of the present day, and of your own circumstances. But I need not confine myself to any one branch of history. You have Mr. Hallam for the whole extent of the Middle Ages and for the Constitutional History of England. We are promised a new history of our own country during a most eventful period, by Mr. Macaulay, whose brilliant

fancy glows upon the page of history with all the warmth of colouring which is usually reserved for works of fiction. And can I forget that I am speaking in the presence of one who, amidst the busy occupations of an otherwise active, benevolent, and useful life, has found time to give to us a history of Europe, written in a tone which every christian can read with advantage and delight, with no fear that his imagination will be unduly excited to admire intellectual greatness apart from moral worth,—a history and retrospect written in a tone and manner which, throughout, the christian historian and student may alike read with admiration and delight?

Now, ladies and gentlemen, the next item in the library return is one of which I wish I could sufficiently impress upon you the great and paramount value and importance,—it is the item of Biography. I frankly confess to you, that of all the departments of literature, this is one on which I am disposed to place the highest value. It is not merely that, when you read the history of any one eminent individual who has taken an active part in the events of his own time, these events are strung together by a thread which often renders them better understood and more easily remembered;—it is not this merely, but the high moral and personal value which ought to be set upon the personal and private lives of great and good men. I cannot doubt but that, among the men on this platform, some of them pretty well advanced in years, there may be some who were personal friends, possibly they were intimate friends, of the great and good Dr. Chalmers

—who for so many years laboured for the spiritual and temporal welfare of this vast community. If any such personal friends of Dr. Chalmers are on this platform,—friends who knew him intimately, and to whom he was accustomed to reveal his difficulties, his fears, and his hopes,—I will ask such a man, whether that recollection is not one of the brightest passages in his own life,—whether he does not set the highest value on that friendship, and the memories which it brings with it? But we must also remember that such a privilege as this can only be enjoyed by a few individuals, and that it is confined to probably some twenty or thirty at most of the cotemporaries of a man like Dr. Chalmers. Now, the advantages which these individuals enjoy, have been extended to succeeding generations of men by means of biography; and I ask you who have read the “Life of Dr. Chalmers,” whether you have not derived from it the highest instruction,—religious, moral, and intellectual? I think a great deal of nonsense is sometimes talked about such biographies being too minute. Such biographies cannot be too minute; the more we know of the lives of such men, and, above all, the more we know of their deaths, the better; and I hold that, in such biographies, it would be far better to err on the side of too great fulness than of too great scantiness. But I take another example of biography, to which I am disposed to attach, I shall not say a greater, but an equal degree of importance,—I mean the life of Dr. Arnold. Now mark the influence which followed the publication of the biography of the head master of

Rugby School. There was something in his character, and in the extreme impetuosity of his opinions, in many of which I do not agree, which prevented his value from being appreciated while he was living; but the moment he was carried away, in the midst of his days and his career,—the moment his inner and spiritual and private life was opened up to the minds and hearts of his countrymen, that instant was a due appreciation felt of the greatness and the goodness of Dr. Arnold's character.

The next item in the library return is Theology and Mental Philosophy; and I need hardly say that this embraces the highest and most difficult study to which young men can direct their attention; and those who devote themselves to it make a wise and a good choice, —a choice, let me say, which the events of our own days may more and more tend to justify. The number of books under this head is 357 out of the whole 7000.

The next item consists of Political Economy and Statistics, an exceedingly important study for those who have the requisite leisure, but one which a worthy friend of mine used to call "rather dreigh," and I pass from it to—

Poetry and the Drama. Now, I do confess, it does strike me as rather singular, that the whole number of volumes under this head falls short by a considerable number of the books taken out on statistics and political economy. I do not know whether this justifies a remark I have sometimes heard made,—that commercial pursuits are rather adverse to a taste for

works of imagination. It is too much the fashion in some societies to talk of poetry and the drama as light and trivial reading. I hold a very different idea of poetry. There is no phase of human life, no shade of individual character, which is not portrayed and represented in this class of literature. Poetry has borne down to us the genius and spirit of the heroic age, in songs of unparalleled sublimity and power. It has reflected the high polish and the intense corruption of heathen civilization. The military spirit of the middle ages breathes through those songs and ballads which first struck fire from the genius of Sir Walter Scott. And with regard to religion, and the forms which it has taken in the different periods of the history of man, what more magnificent record can we have than in the works of Dante and our own Milton? I believe I should not exaggerate if I said that a very large proportion of the highest class of the human intellect, those who have had the greatest and most permanent effect on the minds of their fellow-men, have been among the number of the poets. I do not know that there is any one kind of human composition so limited in its definition and character, with regard to which I could string together so many immortal names as Wordsworth has strung together in the defence of his favourite, but not the most popular form of poetry, I mean the sonnet. What are these names?

“ With this key

Shakspeare unlocked his heart : the melody
Of this small lute gave ease to Petrarch's wound ;
A thousand times this pipe did Tasso sound ;

With it Camoens soothed an exile's grief;
The sonnet glittered a gay myrtle leaf
Amid the cypress with which Dante crowned
His visionary brow: a glow-worm lamp,
It cheered mild Spenser, called from faery land
To struggle through dark ways; and, when a damp
Fell round the path of Milton, in his hand
The thing became a trumpet, whence he blew
Soul-animating strains,—alas! too few!”

No doubt this is a very noble list of names; but I am necessarily reminded, by the very mention of these names, that, although this Institution does afford facilities to the young men of Glasgow for learning modern languages, through which they might acquire a knowledge of the works of all these great poets, nevertheless I cannot but recollect that the great proportion of those who are engaged in active business, are confined to the poetry and literature of their own language. But did I say confined? You need not go beyond your own language to find fountains from which innumerable streams have not ceased, and will not cease to flow. Am I not speaking in the land of Burns—and shall I forget the influence which the Ayrshire ploughman has had on the literature of our own country? Over and over again, it has been acknowledged that his immortal songs,—free as that of the lark which rose from the stubble before his plough, have exercised a most powerful and salutary effect. Not only has that influence operated directly through his own poetry, but what effect has it had on the poetry of others? How powerfully has not the poetry of Wordsworth tinged, in comparatively a short

space of time, the literature of England? Now, what is the confession which Wordsworth made of the influence which the poetry of Burns had on his mind? I believe that, somewhere about forty-seven or forty-eight years ago, Wordsworth made a tour in Scotland. Naturally he was drawn to the grave of Burns; and upon that grave he recorded this confession:—

“ I mourned with thousands, yet as one
More deeply grieved; for he was gone
Whose light I hailed when first it shone,
And showed my youth
How verse may build a princely throne
On humble truth.”

And what a princely throne has not the verse of Wordsworth raised for himself! In his poetry, we can follow him through all the scenes of nature, and say that, through the whole course of his long life,—for his poetry began to be published in 1786-7,—he never uttered one sentiment or thought which may not nourish in our heart, and in the hearts of all men, the noblest thoughts and the best feelings,—all the more noble, because connected with the common things of life, which we meet with in our daily walks,—a poetry, the spirit of which is expressed in his own admirable lines,—

“ To me the meanest flower that blows, can give
Thoughts that do often lie too deep for tears.”

One word more on the subject of poetry. I tell the young men of Glasgow that, in connection with this department of human literature, as in every other, they will come in contact with evil as well as good.

Poetry, alas! has too often expressed the tumult and impurity of human passion, as it is also true that poetry has trembled on the lips of prayer. But, if there are poets who are gifted with higher genius than religious or moral feeling, then generally you will find this true with regard to them, that "the heart knoweth its own bitterness." Is there, in the whole compass of English poetry, lines more steeped in sadness than those which our own Burns addressed to one of the lower animals which he had turned up with his plough?—

"But still thou'rt blest compared with me;
The present only toucheth thee."

If there be any more sad than this, perhaps they are the lines which another great and eminent poet is said to have composed a few days before his death—

"My days are in the sere and yellow leaf;
The flowers and fruits of life are gone;
The worm, the canker, and the grief
Are mine alone."

Therefore I say to you, if there be any poetry, as indeed there is unfortunately, in reading which you will be brought into contact with evil as well as good, these examples will generally exhibit in the minds of the poets what can scarcely fail to have a salutary effect.

The next item I think necessary to mention is the department of Science and Art. I find that the number of volumes on the subject of science in its various departments, and in the various branches of the arts,

is considerably greater than that which has been given either to theology, political economy, or to poetry and the drama. Now, I confess that I am decidedly disposed to recommend the study of science to the young men of Glasgow. I am well aware there is a feeling that in this department of literature it is specially true that superficial knowledge is dangerous. Both poets and moralists have had a great jealousy of the advance of science. Campbell says,—

“When science from creation’s face
Enchantment’s veil withdraws,
What lovely visions yield their place
To cold material laws!”

I will only say with regard to poetry, that I am thoroughly convinced of this, that for one image which science withdraws from the field of imagination and poetry, it will supply a hundred in its place. But it is a more serious objection to the advance of science if she really be found to place any stumbling-block whatever in the way of the religious instruction and beliefs of the people. I have no such fear. I believe that science will ultimately prove that her truths are reconcileable with the higher truths of Christian faith, and that it is only necessary for Christian men to come forward and sift and investigate, to show the fallacious inferences drawn from the facts of science, and show where these inferences are fallacious, and where the true inferences lie. The ground upon which this jealousy has so long been felt is, that it tends to place secondary causes between the individual mind and its apprehension of the direct creative power of God. I

cannot understand how the discovery of secondary causes (and be it remembered, that of ultimate causation we know nothing at all, but only of the order of sequence through which the Creator works,) can have any such influence on a sound mind. Any advance that we can make in the discoveries of science will not add more than a single hair's-breadth to that narrow platform on which our reason and understanding rest, and from the edge of which we must all look out with the eye of faith upon the incomprehensibility of God. Science, ladies and gentlemen, is eminently represented on this platform. I see here my illustrious friend, Sir David Brewster—of whose name we Scotchmen may well be proud, because, as you know, on one of the most interesting and difficult departments of human inquiry, he has, by patient observation and by logical deduction, cast the most brilliant lights—I mean upon the science of optics. I could confidently ask my friend, Sir David Brewster, whether in all his great discoveries he has advanced one jot into the knowledge of ultimate causation; whether any thing that he has discovered has placed aught between him and the power of his faith in his Creator? I know what would be the answer of Sir David Brewster; and I would say to all men, Go forth in the path and in the spirit in which he has conducted his observations, and you will not need to fear the result of the observations and deductions of science.

And now, ladies and gentlemen, before I sit down, (for I find that the observations with which I have troubled you have occupied a very much longer time

than I expected,) allow me to say one word in conclusion to the young men of Glasgow, and to anticipate a case which I really believe must often happen. If any of them should ever go into this library, and be bewildered with the riches they see around them—if they see fountains, at which they would gladly drink—if they see pastures, on which they would gladly feed—and mountains, even the very foot of which they will never have time to reach,—I would ask them, nevertheless, not to be discouraged in the path of mental, moral, and religious cultivation. I would ask them to derive, from these very circumstances, the noblest encouragement of which our nature is susceptible: for they will have learnt in this Institution, when such feelings come over them, the greatest of all lessons—to draw a comparison between the infinite littleness of our mortal life, and the infinite largeness and capacity of our immortal powers. You have NOT time, I would say to every young man—you have NOT time to acquire one-tenth part of what is, after all, the trivial and paltry amount of knowledge with which the accumulated acquirements of many generations have endowed our race. You are not able to acquire a thousandth part of the knowledge stored up in the shelves of the library, sometimes only for your tantalization. In these circumstances, consider what line of study will best conduce to your temporal and eternal interests, and devote to that all your spare time and trust to God for the result. There are branches of instruction to which some of you may feel a natural bias, and which may be made specially

available in your path of life. Consider well what line of study you resolve to choose, and remember that your first great object is to sanctify your moral, as well as to cultivate your intellectual, nature; and that your next object is to do good in your day and generation, in your walk of life, and to those among whom you may be placed. Judging by these criteria, choose your own line of study; but for any sake, and for all sakes, do not lay "waste your powers," nor use—to quote the fine words of Milton—

. . . . "Nor only use
For prospect what, well used, had been the pledge
Of immortality."

ADDRESS

DELIVERED TO THE MEMBERS OF THE

EDINBURGH PHILOSOPHICAL INSTITUTION,

ON THE 11TH NOV., 1851,*

BY SIR DAVID BREWSTER.

NEXT to the constitutional liberty which we enjoy as citizens, is the great privilege of having the freest access to every fountain of knowledge. From their earliest years knowledge, is now presented to the young in their toys and amusements :—To maturer age it is offered in all its variety of forms : It is brought down to the capacity, and made practical for the use, of the children of toil ; and those who possess it in the greatest abundance, and of the highest quality, are proud of an opportunity of conveying it to those who are intellectually beneath them, and rejoice when they succeed in shedding upon a darker mind a ray of that blessed light which has gilded their own.

The day is not very distant when knowledge was the exclusive and the cherished possession of priests

* This address, with several additions and alterations, was delivered also at St. Andrews and Leamington.

and kings, who used it to deceive and subjugate their species. Claiming to be the vicegerents of heaven, the wonders of science and of art were the credentials which they displayed to the vulgar; and thus, dazzled by prodigies which he could not understand, and overawed by lying miracles which he could not fathom, Man—the creature of hope and fear—believed, and trembled, and obeyed.

As an instrument of temporal and spiritual rule, knowledge was eagerly imported by those whose purposes it served, and as eagerly coveted, as an article of contraband, by those whom it was employed to debase. The light of science thus occasionally flashed from beneath the bushel under which it was placed, till its concentrated beams exposed in their meridian splendour the dark imposture of which it had been the tool.

In surveying the intellectual progress of our species, and in tracing the rise and completion of those great inventions and discoveries which have added to our physical enjoyments, and consolidated our power over the material world, we can scarcely fail to recognise the law of development under which the efforts of individual minds are regulated and combined, and by which our reason is destined to attain its maximum of power, and our knowledge its limits of extension. Nor is it less obvious, from the records of sacred and profane history, as well as from the study of the human heart, that a similar law regulates our moral and religious progress; and that the time will arrive when its climax shall be reached, and the great purposes of Providence accomplished.

The Supreme authority which has ordained this grand movement in the living world—this double current of our moral and intellectual sympathies—has prepared the material universe as the arena of its development; and all our civil and religious institutions have been organized as instruments by which that development is to be effected. The confusion of tongues—the physical disunion of empires—the rivalries of industrious nations—are among the auxiliaries by which this triumph is to be consummated. The outbursts of the moral and the physical world form a powerful alliance in the same cause; and, in the vigorous reactions which they invoke, the highest qualities of our moral and intellectual being are called into play. The war which desolates, and the fire and flood which destroy, undermine the strongholds of prejudice and corruption, and sweep away the bulwarks in which vice and error have been intrenched. Amid convulsions like these, indeed, humanity often weeps and trembles, and civilization seems to pause or to recede: but human sympathies glow the warmer, and range the wider; and the pauses of civilization are only breathing stations at which she draws a fuller respiration, and her retrograde steps are but surer footings from which she is to receive a fresh and onward impulse.

The powers and positions of individuals, too, are all nicely adjusted to the functions they have to discharge. Corporeal frames of every variety of strength—moral courage of every shade of intensity—and intellects of every degree of vigour—are among the cardinal elements to be combined. The sovereign who wields

the sceptre, and the serf who crouches under it, differ only in the place which they occupy in the mysterious mechanism. While one class of agents is stationed amid the heats of friction and pressure, others occupy the quiescent points of stable equilibrium, while a larger class forms the inertial mass, or acts as a drag against the stupendous momentum which has been generated. But while busy man is thus labouring at the wheel, the impelling, the maintaining, and the regulating power, is not in him; but by an agency unseen, by an arm gigantic yet invisible, are the heterogeneous elements of force harmonized, and the moral and intellectual dynamics of our species brought to bear upon that single point of resistance where vice and ignorance are to be crushed.

It would be an interesting task, and one not less instructive than interesting, to mark the different rates at which these two tides—the moral and the intellectual—have been advancing, and to investigate the causes which have influenced their progress. When man fell from his first estate, it was his moral not his intellectual nature that suffered. When he renounced the harmlessness of the dove, he did not forfeit the wisdom of the serpent. In the alienation of his mind from what was holy he found an incentive to the concentration of his powers on what was sinful; and his right of dominion over the lower creation, and his lust of power over his own species, summoned into exercise all the intellectual energies of his nature. Thus directed and applied, reason became helpless as a guide to duty; and, when conscience did become his

counsellor, it was only to plunge him deeper into idolatry and superstition.

It was not till the advent of our Saviour that the great tide of moral and religious regeneration began to flow ; and while we who live in these latter days can trace, from the eminence we occupy, its general path over the civilized and savage world, we know from the Divine records, and we read in the events around us, that, however slow be its progress, and however faltering its step, it shall finally cover the earth as the waters cover the channel of the sea.

The tide of secular knowledge and of intellectual dominion is advancing with still greater rapidity ; and though the waves of each—the moral and the intellectual—like two interfering beams of light, have in certain cases produced darkness, and may still produce it, yet their general tendency has been to union and mutual support, and thus to advance, in one common and gigantic breastwork, against the powers of darkness.

No longer does the Christian philosopher dread, as he once dreaded, an alliance with knowledge. He now draws his most impenetrable armour from the once unfathomable depths of Time and Space, and he extracts his brightest lance from the bowels of the earth. He has now no enemy but ignorance and vice ; no false friend but superstition ; no deceitful ally but the priest that ministers at the shrine of mammon, who swears by the gold of the temple, and by the gift upon its altar.

If these views are well-founded, they are pregnant

with important lessons to all classes of society—to the statesman as well as to the labourer, and especially to those who either are or may be engaged in extending the boundaries of knowledge, and who are exerting themselves, as we all ought to do, in diffusing its blessings amid the thick darkness which still invests the nations. It is scarcely an admitted axiom in the philosophy of our legislature, that the first duty of the State is to provide food and education for its people—the physical and the moral manna of our being; and still less is it a universally-received opinion that our noble manufacturing and commercial establishments are national blessings which merit national support.

There are men who denounce railways and steam-boats, and even the cheap intercourse of minds, and who would willingly doom to penury, or even to gradual annihilation, the industrious millions, whose title to existence is as good as their own. These men would cheerfully step back a few centuries to feed on the flesh and clothe in the skins of the beasts of prey, and, perchance, to offer up their meats to idols, not less respectable than the mammon which they worship.

When great inventions or discoveries in the arts and sciences either abridge or supersede labour—when they create new products, or interfere with those already existing—they are not on these accounts to be dreaded, and still less abandoned. The advance which is thus made involves not only a grand and irrevocable fact in the progress of truth, but it is a step in the social march which can never be retraced. The cupidity of a minister, (for his ignorance it cannot

be,) may tax inventions and knowledge—the fanaticism of a priesthood may proscribe education, and even the Scriptures of truth—and the blind fury of a mob may stop or destroy machinery—but cupidity, fanaticism, and rage, have counterchecks within themselves which react on the springs of truth and justice, and finally crush the conspiracy which they had themselves hatched. If, in the conflict of rival principles, the species gains and the individual loses, redress can only be looked for in those compensatory adjustments which so often and so strangely reconcile general and individual interests, and by which Providence strikes a balance between present and overwhelming evils and future and permanent good. The same law which closes one channel of labour necessarily opens up another, and that often through a richer domain, and with a wider outlet; and in every substitution of mechanical for muscular action, man rises into a higher sphere of exertion, in which the ingenuity of his mind is combined with the exercise of his body. He is no longer on a professional level with the brutes that perish, when he ceases to exercise functions which are measured only by so many horse power, and which can be better extracted from so many pounds of coal and so many ounces of water.

But it is not the least advantage of the views I have submitted to you, that they supply to the student new motives for study, and indicate new courses of action to those who, as directors of Philosophical Associations, are destined to take an active part in advancing the great cause of truth and righteousness.

While others are but the hewers of wood and the drawers of water—the physical agents, as it were, in the intellectual movement—theirs are the higher functions of mental toil—to assist in adding new domains to knowledge—to popularise and diffuse it among those who perish for the lack of it—to teach, to persuade, and to warn—to come into direct collision with error, and to grapple with vice and ignorance in their palaces and dens.

Though the world may not appreciate them, these doubtless are noble functions, and doubly noble when gratuitously exercised; and if we but rightly apprehend, and faithfully pursue them, they will react upon our own moral powers, and foster a decision of character, and the faculty of giving righteous judgment in the various questions which agitate the social world.

In order to assist in this great movement, and prepare for the duties which it requires, academical institutions have been individually and nationally endowed; and those in our own land have not been the least successful in developing its genius and enlightening its people.

Nor is it a less questionable corollary, that when one of the arts is left behind in the race of improvement, and has been lingering amid the sloth and ignorance of its cultivators, it can have no claim on the sympathy and protection of the community. Were it the art of building ships, of forging anchors, or of welding cables, (to form the defensive bulwarks of the nation,) or were it the most trivial manipulation

which administers to the personal vanity of the most frivolous, the principle would have the same foundation in truth and justice. But when it is the art of manufacturing food—when the poor and the rich are the antagonists in the combat—and when it involves the life and death of starving multitudes—the principle of protection, in its transcendental form, now happily abandoned by every party in the State, will, in future ages, be ranked in the same category with burning for heresy, or drowning for witchcraft.

Our universities were all established when there were only three learned professions, and their modes of instruction were, of course, accommodated to the wants of an age but little advanced in civilization and knowledge. Attempts, indeed, have been occasionally made to adapt them to a change of circumstances, but they have been feeble and ineffectual; and while some of them possess chairs of but little importance, and lectures on subjects which can be better studied in books, others are destitute of the means of instruction on the most important sciences and arts—sciences which of all others are most intimately connected with our secular, as well as our eternal, interests, and *arts* which give employment to millions, which are the mainstay of our commercial greatness, which fill the national treasury, and exalt the national character. Need I mention to you the new physical sciences of VOLTAIC ELECTRICITY, ELECTRO-MAGNETISM, MAGNETO-ELECTRICITY, ELECTRO-METALLURGY, the ELECTROTYPE, and the new art of PHOTOGRAPHY, which has recently made such rapid and unexpected

progress? Need I enumerate the natural sciences of ZOOLOGY, MINERALOGY, GEOLOGY, and BOTANY?—or need I direct your attention to the labours of the mechanist and the civil engineer—to our gigantic steam vessels, facilitating the intercourse of nations—to our canals, uniting distant oceans—to our suspension and tubular bridges—to our aqueducts and viaducts, spanning impassable vallies—to our harbours and breakwaters, sheltering our vessels of peace and war—to our railways, hurrying us along on the wings of mechanism; and to our lighthouses, throwing their beams of mercy over the deep?

The importance of such subjects cannot be over-rated; and a certain degree of acquaintance with them is now a necessary part of a liberal education. In a community like ours, where knowledge is so widely diffused, and has become professionally necessary, those who have had the benefit of an academical education must resume their studies, and raise their general knowledge to a much higher level; while those who have not enjoyed this advantage have a still higher step to take, and a still greater defect to supply.

It was not till the beginning of the present century that measures were taken to extend our institutions for the advancement of science, literature, and the arts. The urgencies of war had summoned into exercise much of the nation's genius, and engrossed much of its attention; and it was only when peace had been conquered for Europe, that our intellectual wants called forth the liberality of the nobility and gentry of England. The British Institution which

has given to science two of its most illustrious cultivators, and to England two of its brightest names, (Davy and Faraday,) was the first of a series of establishments which have sprung up in every part of the empire, and which, whether local or general, whether fixed or migratory, have done much in preparing the public mind to appreciate the noblest and most gigantic of all our institutions—the “Exhibition of the Industry of all Nations.”

This is not the place nor the occasion to do more than allude to this successful display of the taste, the genius, and the intellectual energy of the different nations that competed for its honours; and I refer to it chiefly for the purpose of stating that by its agency the value of useful knowledge, and the necessity of a more general cultivation of science and the arts, have been impressed on thousands whose minds could be reached only through the eye, and who had never before felt a generous sympathy for the inventor's genius or the artist's skill. But though thousands have been thus enlightened, thousands still remain in darkness, and some comprehensive plan must be devised for placing within the reach of all that system of ocular teaching, which stimulates the indolent to study and compels the ignorant to inquire. Every city in the empire, every provincial town, and even every parish village, should have its philosophical institution or school, with its museum and collection of models; and our great national repository—the British Museum—might advantageously supply these institutions with thousands of its duplicates, which

add neither to the beauty nor the interest of its overflowing and magnificent collections.

Although there is no branch of science and literature, and no department of the fine or the useful arts, that is not professionally or intellectually useful, as well as ornamental; yet there are certain branches of the physical and natural sciences which possess peculiar advantages as subjects for general instruction. However deep be the interest which we take in the history of our species—in the amelioration of our social institutions—in the creations of human genius—and in the productions of human industry—it is pre-eminently our duty, while it is the highest of our privileges, to study the Creator's works:—to know something of the vast sidereal universe of which we form a part—of the system of planets to which our own belongs—of the physical history and construction of our terrestrial home—of the organic and inorganic substances which compose it—of the precious materials in its bosom, which Providence has stored up for civilization,—and of those noble forms of life and beauty which everywhere appeal to the affections and intelligence of man. To know nothing of the planet which is now our home, or of those celestial regions which may yet be our abode, and to remain willingly ignorant of the very elements which we breathe—which constitute our corporeal frame, and to which we must all sooner or later return,—is to do violence to the immortal natures which we inherit, and to display the most culpable indifference to the future destiny of our being.

Deeply impressed with the importance of these views, I shall make no apology for offering you a slight sketch of some of those branches of study which should occupy a prominent place in every course of general and popular instruction.

One of our first desires—though one of the last to be gratified—is to know something of our mental constitution, and of those processes by which we think and reason, by which we analyze what is complex, and combine what is insulated. In claiming your brief attention to the philosophy of mind, as a subject of study, it is less for the purpose of giving you any useful information than of guarding you against the dangers which lurk under some of its most alluring speculations—against the Scylla of scepticism on the one hand, and the Charybdis of credulity on the other. However highly we may estimate the genius of its cultivators, it cannot be denied that the philosophy of the mind is a science which has not yet taken its place within the domains of positive knowledge. It is impossible to read the interesting details of its progress, to follow its ingenious and varied speculations, and to weigh the conclusions at which its votaries have arrived, without endeavouring to estimate the importance and extent of its acquisitions, and without fearing that a value too high has been set upon them, and an extent too wide assigned them. Amid the details of its progress, we gaze with delight on the first dawns of intellectual truth,—we admire it as it brightens amid the clouds and storms of scholastic disputation,—we follow it with straining eye till it is eclipsed in the

superstition and darkness of the middle ages,—we glory in its revival amid the congenial gleams of literature and science,—and we pursue it through all the lights and shadows of modern controversy till our labouring reason abandons her pursuit amid the cloud-capt metaphysics of the German school. In this survey of its own powers, the mind is bewildered amid conflicting opinions, and loses hold even of the acquisitions which it may have made. The truths of one age are found to be the errors of the next; the lights of one school become the beacons of its rival; and, amid the mass of ingenious speculation, and the array of ambiguous facts, to which the inductive process can scarcely be applied, we seek in vain for distinct propositions and general laws. If that only can be called truth which we can compel a sound and unprejudiced mind to believe, we are driven to the conclusion that our intellectual philosophy cannot yet boast either of the grandeur or the number of her achievements. Even in that department which relates to the functions and indications of the senses, where physical science comes powerfully to our aid, there is but little harmony among the opinions of our most distinguished metaphysicians; and many of those points which Reid and Stewart were supposed to have established, have been keenly and ingeniously assailed by their successors. How much more difficult, then, must it be to establish incontrovertible truths, when the phenomena are those of thought and consciousness, and the sole instrument of research by which we take cognizance of them is the abstract power of reflection.

But however diverse, and even antagonistic, have been the views of metaphysicians on some of the most fundamental points of their science, there is one on which they have been fatally agreed—the celebrated speculation of Bishop Berkeley, that the eye gives us no knowledge of distance, or of that third dimension of space which constitutes solidity; that vision informs us only of the colour, and not of the form, of objects; and that *outness*, or the existence of objects out of the eye, cannot be derived from the sense of sight. The incapacity of touch, and the other senses, to instruct us respecting external things, was soon deduced by the same process of reasoning, and the material world was struck out of existence. In the speculations of Hume, the world of mind equally disappeared, and man was thus left a visionary, in the infinitude of space, where the world which he saw was an illusion and the life which he spent a dream. The theory of vision, of which this was the issue, though the very basis of scepticism, was substantially maintained by Reid, Adam Smith, Stewart, and Brown; and it is only very recently that optical science has furnished the means of its complete refutation. Accustomed to look at truth only in its demonstrations—in those bright phases of it which flash conviction on the mind—it is not easy for the student of physical science, even under the fascination of illustrious names, to surrender at once his reason and his conscience. If it was by an arrow stolen from the quiver of science that truth suffered in the contest, it is by a lance forged from the same steel that the gigantic heresy has fallen.

Ever delighting in extremes, the human mind passes, by an easy transition, from scepticism to credulity; and in a false philosophy, which still counts its victims—I allude to phrenology—speculation has rushed from a world without matter into a world that is wholly material. Acting through material organs, the human mind may exercise higher and lower functions, in obedience to the form, and magnitude, and condition of its instruments; but if it be true that the mechanical pressure of a human finger upon an inch of human cuticle, propagated, it may be, through an inch of bone, and impressed upon an inch of the mental organ—if it be true, I say, that such a pressure can excite emotions of piety, and evoke expressions of devotion, thus mechanically summoning into activity the noblest functions of the soul, then is that soul but an aggregate of dust—a lump of kneaded clay, which shall die at man's death, and crumble at his dissolution!

But though the human soul is thus reduced from a spiritual to a material condition, it is said to have acquired, in its humiliation, powers almost divine, with which the enemies of materialism never dared to invest it. Under the mesmeric influence, new senses are said to be imparted with the soporific current. The patient sees beyond the range of the telescope, and hears where the vibrations of the air have ceased. He tastes with the palate of his master, moves with his muscles, and thinks with his faculties. He discovers the seat and nature of his own diseases, though he be no physician; he compounds drugs for the cure of

others, though he be no apothecary ; and he predicts future events without being a prophet. By a wave of the hand, **this** type of an imperfect divinity starts from his trance, and again becomes mortal, unconscious of the supernatural powers which he has wielded, and of the miraculous feats which he has performed !

In making these observations on the extravagances of mesmerism, my object is to guard you against a too easy reception of opinions which stand in direct conflict with reason, and which it therefore requires a very peculiar kind of evidence to establish. The study of the mind in its abnormal phases is doubtless one of deep interest ; and, if conducted with a cautious spirit, and under a due distrust of the marvellous, may lead to new and even valuable results. The influence of the soul over the body, and the power of one mind over the sensations and actions of another, have been already made known in this city under the ill-chosen name of *Electro-biology*, and there can be no doubt of the reality of the phenomena which have been thus exhibited. Some of the most distinguished physiologists have now admitted their truth ; and, from conversations which I have recently had with two of our most eminent physicians, Sir Benjamin Brodie and Dr. Holland, I have no doubt that the extraordinary facts to which I have alluded will yet be referred to some general principle which has hitherto eluded the search of the metaphysician and the physiologist.

From the cloudy horizon of metaphysical speculation we now pass to a brighter region, to take a view of the planetary system to which we belong, and in whose

past history and future fate we have the deepest interest. There is, certainly, no branch of science better fitted to be made the leading subject of general instruction than that which relates to the planetary and sidereal universe. The truths which it reveals are so startling in their nature, and apparently so far beyond the reach of human intelligence, that men of high literary name have confessed their incapacity to understand them, and their inability to believe them. There are few, indeed, we fear, who really believe that they sojourn on a revolving globe, and that each day and year of life is measured by its revolutions. There are few who believe that the great luminary of the firmament, whose restless activity they daily witness, is an immoveable star, controlling, by its solid mass, the primary planets of our system, and forming, as it were, the gnomon of the great dial which measures the thread of life and the tenure of empires. Fewer still believe that each of the million of stars, those atoms of light which the telescope can scarcely descry, are the centres of planetary systems that may equal or surpass our own; and still smaller is the number who believe that the solid pavement of the globe upon which we nightly slumber is an elastic crust, imprisoning fires and forces which have often burst forth in tremendous energy, and are, at this very instant, struggling to escape—now finding an outlet in volcanic fires,—now heaving and shaking the earth,—now upraising islands and continents, and gathering strength perhaps for some final outburst which may shatter our earth in pieces, or change its form, or scatter its waters

over the land. And yet these are truths than which there is nothing truer, and nothing more worthy of our study.

In surveying the bodies of our system, the first and the grandest object which arrests our attention is the glorious sun—the centre and soul of our system,—the lamp that lights it, the fire that heats it,—the magnet that guides and controls it,—the fountain of colour which gives its azure to the sky, its verdure to the fields, its rainbow hues to the gay world of flowers, and the “purple light of love” to the marble cheek of youth and beauty. This globe, probably of burning gas, enveloping a solid nucleus, is nearly 900,000 miles in diameter, above a hundred times the diameter of our globe, and five hundred times larger in bulk than all the planets put together! It revolves upon its axis in twenty-five days, and throws off its light with the velocity of 192,000 miles in a second. Around, and nearest the sun, at a distance of thirty-six millions of miles, revolves the planet MERCURY, with a day of twenty-four hours, and a year of eighty-eight days. Through the telescope we observe spots on its surface, and mountains several miles in height. Next to Mercury the planet VENUS revolves at the distance of sixty-eight millions of miles, with a day of nearly twenty-four hours, and a year of 224 days. Her diameter is 7700 miles, a little less than that of the earth. She changes her phases like the moon, exhibits spots on her surface, and has mountains nearly twenty miles in height. The next body of the solar system is our own EARTH—our birth-place, and soon to be

our grave. Its distance from the sun is ninety-six millions of miles, its diameter nearly 8000; its year 365 days, and its day twenty-four hours. It is accompanied by a MOON or satellite, whose distance is 237,000 miles, and diameter 2160. Her surface is composed of hill and dale, of rocks and mountains, nearly two miles high, and of circular cavities, sometimes five miles in depth and forty in diameter. She possesses neither *rivers*, nor *lakes*, nor *seas*; and we cannot discover with the telescope any traces of living beings, or any monuments of their hands, though we hope we shall do it with the magnificent Achromatic Telescope which the Rev. Mr. Craig* has just completed for the promotion of astronomical discovery. Viewing the earth as we now do, as the *third* planet in order from the sun, can we doubt that it is a globe like the rest, poised in ether like them, and, like them, moving round the central luminary?

Next, beyond the earth, is the red-coloured planet MARS, with a day of about twenty-five hours, and revolving round the sun in 687 days, at a distance of one hundred and forty-two millions of miles. His diameter is 4100 miles, and his surface exhibits spots of different hues,—the seas, according to Sir John Herschel, being *green*, and the land *red*.

* The Rev. Mr. Craig of Leamington has constructed, at his own expense, a magnificent Achromatic Telescope, about eighty feet long, and with an object glass twenty-five inches in diameter,—the largest lens that has ever been made for a telescope. The Flint Glass was made by Mr. Bontemps, at the Glass Works of Messrs. Cleance, Birmingham.

Hitherto we have been surveying worlds at a respectful distance from each other, and having days, and nights, and seasons, and aspects, of the same character; but we now arrive at a region in space where some great catastrophe has doubtless taken place. At the distance of about two hundred and fifty millions of miles from the sun, corresponding to a period of about 1500 days, astronomers long ago predicted the existence of a large planet, occupying the space between Mars and Jupiter. In the beginning of the present century, one very small planet was discovered in this locality by M. Piazzi; and after other two had been discovered, one by himself, Dr. Olbers hazarded the opinion that the *three* planets were fragments of a larger one which had burst; and this remarkable theory has been almost placed beyond a doubt by the discovery, in the same place, of *thirteen* fragments in all, chiefly by M. Gasparis of Naples, and our own countryman, Mr. Hind.

Beyond this remarkable group is situated the planet JUPITER, a world of huge magnitude, revolving round its axis in ten hours, and round the sun in 4333 days, (a little less than twelve years,) at the distance of four hundred and eighty-five millions of miles. His diameter is 90,000 miles, and he is attended by *four* satellites, the average size of which is a little greater than that of our moon. His surface exhibits bright spots and dark belts, indicating an equatorial agency like that of our trade-winds.

Next to Jupiter is the remarkable planet SATURN, accompanied with *eight* satellites, and surrounded by a

ring, separated from his body by an interval of 19,000 miles. The distance of Saturn from the sun is eight hundred and ninety millions of miles, his annual period twenty-nine and a-half years, and the length of his day ten and a-half hours. His diameter is 76,000 miles, and the outer diameter of his ring 176,000. According to very recent observations, the ring is divided into *three* separate rings, which, according to the calculations of Mr. Bond, an American astronomer, (just published,) must be fluid. He is of opinion that the number of rings is continually changing, and that their maximum number, in the normal condition of the mass, does not exceed *twenty*. According to Mr. Bond, the power which sustains the centre of gravity of the *ring* is not in the planet itself but in his satellites, and the satellites, though constantly disturbing the ring, actually sustain it in the very act of perturbation.

Beyond Saturn, at a distance from the sun of one thousand eight hundred millions of miles, is placed the planet URANUS, discovered by Dr. Herschel. Its year, or annual period, is eighty-four years, and the length of its day nine and a-half hours. His diameter is 34,500 miles, and he is attended by *eight* satellites, six of which were discovered by Dr. Herschel, and the other two, within the last month, by Mr. Lassels of Liverpool.

The remotest planet of our system, the planet NEPTUNE, discovered theoretically in 1846, by Adams and Leverrier, and first recognised in the heavens by M. Galle of Berlin, is about 42,000 miles in diameter, and, with a single satellite, revolves round the sun in

63,000 days, (about 145 years,) at the distance of nearly *three thousand millions* of miles from the sun.

Having thus travelled from the centre to the verge of the planetary system,—from the effulgent orb of day to that almost cimmerian twilight where Phœbus could scarcely see to guide his steeds, let us ponder a while over the startling yet instructive sights which we have encountered in our course. Adjoining the Sun, we find Mercury and Venus, with days and seasons like ours. Upon reaching our own planet, we recognise in it the same general features, but we find it larger in magnitude, and possessing the additional distinction of a satellite and a race of living beings to rejoice in the pre-eminence. In contrast with Mars, our earth still maintains its superiority both in size and equipments; but, upon advancing a little farther into space, our pride is rebuked and our fears evoked, when we reach the part of our system where the relics of a once mighty planet are revolving in dissevered orbits, and warning the vain astronomer of another world that a similar fate may await his own. Dejected, but not despairing, we pass onward, and, as if in bright contrast with the desolation we have witnessed, there bursts upon our sight the splendid orb of Jupiter, proudly enthroned amid his attendant satellites. When compared with so glorious a creation, our own earth dwindles into insignificance. It is no longer the monarch of the planetary throng, and we blush at the recollection that sovereigns and pontiffs, and even philosophers, made it the central ball, around which the Sun and Moon and planets, and even stars, revolved

in obsequious subjection. The dignity of being the seat of intellectual and animal life, however, still seems to be our own; and if our globe does not swell so largely to the eye, or shine so brightly in the night, it has yet been the seat of glorious dynasties,—of mighty empires,—of heroes that have bled for their country,—of martyrs who have died for their faith,—and of sages who have unravelled the very universe we are surveying. Pursuing our outward course, a new wonder is presented to us in the gorgeous appendages of Saturn, encircled with a brilliant ring, and with eight moons, for the use, doubtless, of living beings:—Advancing onwards, we encounter Uranus, with his eight pledges that he is the seat of life; and after passing the new planet Neptune, at the frontier of our system, we reach what is the region, and what may be regarded as the home, of comets.

COMETS, or wandering stars, as they have been called, are those celestial bodies which appear occasionally within the limits of the solar system. They move in elliptical orbits, in one of the foci of which the sun is placed; but, unlike the planets which always move from west to east, the comets resolve in orbits inclined at all possible angles, and move in all possible directions. The movements of the six or seven hundred comets which have been observed, must be chiefly executed within that vast and untenanted region, which lies between the nearest known fixed star and the orbit of *Neptune*, an interval equal to six thousand times the distance of that planet from the sun, or twenty-one million million of miles.

What is their occupation there, or what it is here, when they are our visitors, we cannot venture to guess. That they do not perform the functions of planets is obvious from their very nature; and there is no appearance of their importing any thing useful into our system, or of their exporting any thing useful to another. Judging from the immense portion of their orbits which lie beyond our system, we are disposed to imagine that the central body of some other system is placed in the distant focus of each of their orbits, and that in this way all the different systems in the universe are, as it were, united into one by the intercommunication of comets. Some comets have passed near the earth, and others may pass still nearer; but even if they should not produce those tremendous effects which Laplace has indicated, and if their great rarity and rapid motion should hinder them from acting upon our seas, or changing the axis of our globe, a sweep of their train of gas or of vapour would not be a pleasing salutation to living beings. The greatest distance of the most distant comet that has been observed, falls short of the distance of the nearest fixed star by *nine million million of miles*. Placing ourselves at this distance, how ridiculous appears the idea, so long and devoutly cherished, that the heavens, with all their host, revolved round our little planet. At that point the earth is not even visible, and the whole starry creation, and our sun itself dwindled into a star, stands fixed and immoveable.

Our time will permit us only to take a rapid glance

of the sidereal or starry universe. The number of stars seen by the naked eye does not greatly exceed 3000. The number which can be seen with the telescope has been reckoned above *a hundred million*; but if we now consider it as probable, as we well may, that all nebula are clusters of stars, as indicated by Lord Rosse's telescope, the number of *stars*, or *suns*, or *systems*, may be regarded as beyond the power of numerical expression. These stars are sometimes insulated—sometimes combined in clusters—sometimes in *double*, *triple*, and *quadruple* systems. When a cluster is far distant it has the appearance of a *nebula*; and in proportion as our telescopes increase in power, we have reason to believe that many of the nebula will be resolved into stars. When two stars form a *binary system*, it has been found, in many cases, that the one revolves round the other, and that the motions thus exhibited are conformable to the law of gravity which guides our own planets in their course.

But this is not the only motion which has been noticed among the stars. It was long ago observed that those in the constellation Hercules were receding from one another, while those in the opposite quarter of the heavens were approaching each other. By a series of admirable observations made by the three Russian astronomers, *Argelander*, *Struve*, and *Peters*, it has been placed beyond a doubt, that our solar system is advancing in space to a point between two stars, π and μ , in the constellation Hercules, at the rate of 154 million of English miles in the year,

or fifty-seven miles in a second. That this motion is performed round some distant centre can scarcely be doubted; and it will be a problem for future ages to determine the nature and distance of the centre, and the time in which this great revolution is performed.

It is impossible to bring to a close this brief notice of the solar and sidereal systems without forming some notion, however inadequate, of the structure and uses of such vast collections of matter—such assemblages of gigantic globes, occupying every corner of universal space. We see these bodies shining with the brightness of our sun, and with light of the same composition and character; we recognise the immensity of their size; we perceive many of them in motion, and we cannot therefore doubt that they are portions of systems, if not perfectly similar at least in general, analogous with our own. But what, asks the anxious inquirer, is the structure and the object of our own? Let us view it from a distance, disentangled from the clouds of prejudice and error in which we are involved, and let us take a position in mid-way space and consider the deductions which our knowledge will entitle us to draw. Every planet of our system has its year and its day, and its oblate form; while many of them have their moons to enlighten them, and exhibit on their surface the indications of past and of present change. Each of them is heated and lighted by the sun, and, constituting as they do a group of similar objects, we cannot but conclude, that, however various be their sizes, their motions, and their appendages, they must yet

have the same general constitution, and perform the same functions. Hence we are compelled to believe that the primary planets, at least, are bodies like the earth, composed of land and sea, and are the theatres of animal and intellectual life. The variety which characterizes the works of creation, even when their nature and functions are the same—the very variety in the general aspect of the planets leads us to believe that an analogous variety will exist in the different worlds of our system, and that the beings which form the irrational and intellectual races may be endowed with forms, and organs, and faculties, very different from our own. But whatever this difference may be, we can scarcely doubt that those glorious combinations of matter which form the solar system, were intended for the support of animal and vegetable life.

If we now transfer ourselves from our own planetary home to a commanding position among the sidereal abodes, the same analogies which have guided us must guide us still. If we do not there descry systems of primary and secondary planets, we discover self-luminous bodies like our own sun, in double and triple combination with other bodies, whose nature and character we are not capable of ascertaining. If we cannot measure their day and their year, we see periodical motions which begin and complete their round; and we see recurrent changes which indicate phenomena similar to those with which we have been familiar. And if God has fitted up for living occupants the huge globes of our own portion of his universe, we are entitled to ascribe the functions of suns and

planets to all the similar globes with which he has adorned the sidereal expanse.

In order to learn, then, what is the constitution, and what has been or may be the probable history of the various worlds in our firmament, we must study the constitution and the physical history of our own. The men of limited reason who believed that the Earth was created and launched into its ethereal course when man was summoned to its occupation, must have either denied altogether the existence of our solar system, or have regarded all its planets as coeval with their own, and as but the ministers to its convenience. Science, however, has now corrected this error, and liberated the pious mind from its embarrassments. The palæontologist—the student of ancient life,—has demonstrated, by evidence not to be disputed, that the Earth had been inhabited by animals and adorned with plants during immeasurable cycles of time antecedent to the creation of man,—that when the volcano, the earthquake, and the flood, had destroyed and buried them, nobler forms of life were created to undergo the same fiery ordeal ;—and that, by a series of successive creations and catastrophes, the Earth was prepared for the residence of man, and the rich materials in its bosom elaborated for his use, and thrown within his grasp. In the age of our own globe, then, we see the age of its brother planets, and in the antiquity of our own system we see the antiquity of the other systems of the universe. In our catastrophes, too, we recognise theirs, and in our advancing knowledge and progressive civilization,

we witness the development of the universal mind,—the march of the immortal spirit to its final destiny of glory or of shame.

The Being who created the earliest forms of life that possessed our Earth was not likely to limit to so insignificant a planet such a display of his wisdom and power; and the same high purpose which prompted its successive changes as steps in the march of terrestrial organization, must have operated in the preparation of the planetary worlds. To believe that the Earth was the only place where organic life was given and taken away—the only field where great physical revolutions were in play, would be to detract from the wisdom and beneficence of the Creator. To the laws of nature we dare not assign either limitation or locality. Wherever there is matter, we may predict its laws and its elements, and wherever are its elements, we may anticipate the existence of beings that are to use them. Wherever light shines, there must be an eye to welcome it; wherever air expands, there must be beings to breathe it; wherever heat vivifies, there must be life to be revived. Every where there is matter—every where there is light, and every where there must be life,—life-animal to enjoy God's bounty—life-intellectual to expound his wisdom, and life-moral to love and to fear his name.

We are thus led to place next to Astronomy, the science of *Physical Geography*, as one of the most interesting subjects for a course of general and popular instruction. When viewed from afar, as an individual planet in the system, our terraqueous globe

presents but little interest among the magnificent bodies which surround it; but when we alight upon its surface,—tread its verdant plains,—survey its purple-lighted hills,—gaze upon its interminable expanse of waters, and look upward to the blue ether which canopies the whole,—the imagination quits the contemplation of the universe, and ponders over the mysterious realities around. The chaos, the creation, the deluge, the earthquake, and the volcano, press themselves upon our thoughts; and, while they mark the physical history of the past, they foreshadow the dreaded convulsions of the future. Associated with our daily interests and fears, and emblazoning in awful relief our relation to the Great Being that ordained them, we are summoned to their study by the double motive of a temporal and spiritual interest, and of an inborn and rational curiosity.

When we stand before the magnificent landscape—of hill and dale, of glade and forest, of rill and cataract—with its rich foreground at our feet, and its distant horizon on the deep, or on the mountain range tipped with ice, or with fire, the mind reverts to that primæval epoch, when the everlasting hills were upheaved from the ocean, when the crust of the earth was laid down and hardened, when its waters were enchanelled in its riven pavement, when its breast was smoothed and chiselled by the diluvian wave, and when its burning entrails burst from their prison-house, and disclosed the fiery secrets of their birth.

When again we turn to the peaceful ocean, expanding its glassy mirror to the sun, embosoming in its

dove-like breast the blue vault above, and holding peaceful communion with its verdant or its rocky shores, the mind is carried back to that early period when darkness was over the face of the ocean—when the waters were gathered into the hollow of the land—and when the broken-up fountains of the deep consigned the whole earth with its living occupants to a watery grave. But, while we thus linger in thought over the ocean picture, so placid and serene, we are reminded of the mighty influences which it obeys. Dragged over its coral bed by an agency unseen, and stirred to its depths by the raging tempest, the peaceful sea is transformed into a Fury—lashing the very heavens with its breakers—bursting the adamantine barriers which confine it—sweeping away the strongholds of man, and engulfing in its waves the mightiest of his floating bulwarks.

But it is in the pure atmosphere which we breathe that the most remarkable revolutions must have been effected; and it is in this region, also, that Nature presents us, in our own day, with the most fearful contrasts—with the most peaceful repose of the elements, and the most terrific exhibition of their power. The primæval transition, from the chaos of the atmosphere to a pure and cloudless sky, must have been the result of frequent and convulsive actions. The exhalations from the green and fermenting earth—the gaseous currents from its heated crust, the impoisoned miasmata from its crevices and pores, and the watery vapours from putrid lake and troubled sea, must have formed an insalubrious compound which it required

the electric stroke to purify and decompose. While there was yet no light on the earth, and the sun and moon were veiled with thick darkness—the “waters above the firmament” must have descended in torrents—the hailstorm must have rushed from the upper air, and the tempest, and the lightning, and the thunder-bolt, must have combined their tremendous energies before the rebellious elements were insulated and subdued. In now contemplating the aerial granary, which so peacefully surrounds and sustains us, we could scarcely anticipate the character and extent of its abnormal phases. The same powers, which were needed for its original distillation, seem to be required to maintain it salubrious and pure; and, though these powers are in daily operation near us and around us, we know them only as destroying agents, and take little interest in the wonderful arrangements which they subserve.

When on a peaceful morning the sounds of busy life are hushed, and all Nature seems recumbent in sleep; how deathlike is the repose of the elements—yet how brief and ephemeral is its duration! The zephyr whispers its gentle breathings—the aspen leaf tries to twitter on its stalk—the pulse of the distant waterfall beats with its recurring sound—the howl of the distant forest forewarns us of the breeze that moves it—the mighty tempest supervenes, cutting down its battalions of vegetable life, whirling into the air the dwellings and the defences of man, and dashing the proudest of his war-ships against the ocean cliffs, or sinking them beneath the ocean waves. When

thus awakened from her peaceful trance, Nature often summons to the conflict her fiercest powers of destruction. The electric agents—those ministers of fire, which rule so peacefully when resting in equilibrium, and which play so gently in the summer lightning sheet, or so gaily in the auroral beams—frequently break loose from their bonds to frighten and destroy. When the heat of summer has drawn up into the atmosphere an excess of moisture, and charged the swollen clouds with conflicting electricities, the dis-severed elements rush into violent re-union, and compress in their fiery embrace the vaporous mass which they animate. Torrents of rain, and cataracts of hail emerge from the explosion, and even stony and metallic meteors rush in liquid fire from the scene. The forked lightning-bolt flies with death on its wing, rending the oak trunk with its wedge of fire, and transfixing with its lurid dagger the stalwart frame of man and of beast; and before life is extinct, the thunder-clap rolls in funereal echo from cloud to cloud, and from hill to hill, as if a shout were pealed from the cloud of witnesses, in mockery of the helplessness of man, and in triumph over his fall.

How interesting, then, must it be to study such phenomena—to escape for a while from the works of man—to go back to primæval times to learn how its Maker moulded the earth—how he wore down the primitive mass into the strata of its present surface—how he deposited the precious metals in its bowels—how he filled it with races of living animals, and again buried them in its depths, to chronicle the steps

of creative power—how he covered its surface with its fruit-bearing soil, and spread out the waters of the deep as the great highway of nations, to unite into one brotherhood the different races of his creatures, and to bless them by the interchange of their produce and their affections!

The next and the last topic to which I would call your attention as a subject for general and popular instruction, is that of *natural science*, including *zoology*, *botany*, *mineralogy*, and *geology*. These branches of natural history, though of great professional utility, as well as of general interest, were at one time regarded as studies fit only for inferior minds. The mathematician and natural philosopher assumed to themselves the highest place in the temple of science, and had almost expelled the collector and classifier from its precincts. Presuming that *magnitude* and distance ennobled material objects, and gave sublimity to the laws by which they are governed, and taking it for granted that the imponderable and invisible agencies of Nature presented finer subjects of research than the grosser elements which we can *touch* and *taste* and *accumulate*, they have habitually placed the humble and pious naturalist in the lowest ranks of philosophy.

This unjust appreciation of the unity and grandeur of nature, of the matchless structures of terrestrial bodies, and of the beautiful laws of organic life, was perhaps the cause of the low state of natural science during the two last centuries. Men of acute and exuberant genius naturally invested their intellectual capital in researches which were likely to return them

an usurious interest in reputation; and we can scarcely deny, that the richest fields of Nature were, for a long time, cultivated by very humble labourers. *Linnaeus* was the first naturalist who applied the powers of a methodical and sagacious mind to the classification of organic bodies; while *Buffon* threw around natural history the mantle of poetry and philosophy, and, by animated and picturesque description, bold and original views, and a rich and powerful eloquence, restored it to public favour. A wide space, however, was still left between the orbits in which these two naturalists moved, and a planet was still wanting to occupy the void. This individual was the illustrious *Cuvier*. Uniting the patient toil, the minute accuracy, and the methodical habits of *Linnaeus*, with the lofty views and gorgeous eloquence of *Buffon*, and adding to these resources the treasures of universal knowledge, he raised *natural history* to its true place among the sciences,—he allured to its cultivation minds of the highest bearing, and rendered it the firm support and the inseparable handmaid of natural religion. The steps by which *Cuvier* proceeded in his researches are in themselves exceedingly instructive. Considering the natural history of a single animal as including a knowledge of its organization and properties, he concluded that its place in any systematic arrangement must be determined by that organization and these properties. Anatomical structure, therefore, and physiological functions constituted the basis of his zoological system: the *general* and *least variable* features forming the *great* divisions,

and the less general and *more* variable features the *secondary* divisions or orders. In this way he formed four leading and well-marked classes, viz., *vertebrate*, *molluscous*, (shell fish, snails,) *articulated* (earth worms, lobsters, insects) and *radiated* (star fish, corals, infusoriæ) animals.

In studying the anatomy of *vertebrated* animals, Cuvier was led to views of peculiar interest. Regarding every living being as created for some express purpose, and as provided with organs by which that purpose was to be accomplished, he viewed each animal as forming a complete system within itself, and the connexion of all its parts so intimate, that none of them could be modified without influencing the rest, and that each modification indicated every other. Hence he drew the grand inference that every bone of a skeleton bore the mark of the *class*, *order*, *genus*, and even *species* to which it belonged; and this fact became the foundation of *fossil geology*. In applying this principle to the fossil remains of ancient animals, he discovered that they belonged to races long ago extinct;—that the differences between the bones of fossil and recent species increase with the age of the deposit in which the former are found, and that these differences mark the age of the deposits themselves.

As no traces of plants or animals are found in the primitive rocks, Cuvier inferred that there was a time when living beings did not exist upon the earth, when physical forces alone acted upon the sea and the land, and when the materials of organic life were either not prepared or not developed.

In thus deciphering the handwriting of Nature on her tablets of stone, the same distinguished naturalist discovered that all organised beings were not created at the same period. In the commissariat of Providence, the stores were provided before the arrival of the host that was to devour them. Plants were created before animals; the mollusious fishes next appeared, then the reptiles, and, last of all, the mammiferous quadrupeds completed the scale of animal life.

These simple deductions involved a degree of labour which is scarcely credible. From fragments of bones, *Cuvier* re-established 168 vertebrated animals, which form 50 genera, of which 15 are new, and, reckoning the additions to this list since his time, there is ground to believe that the extinct species of animals surpass in number those which at this moment exist.

But a more instructive result still has been deduced from these inquiries. *Cuvier* has shown that these extinct animals belong to genera and species essentially distinct from those which now exist, that the extinct species could not have been the parent stock of the present race of animals, and that these differences could not arise from a change of soil, or of climate, or any other accidental cause. Naturalists of no mean name had asserted that an indefinite alteration of forms might take place in organic beings, and that a change of species might, in a length of time, be the result of a change of habits and of locality: *Cuvier*, however, has proved from the skeletons of mummies, that the animals, whether domestic or wild, which lived in Egypt 2000 or 3000 years ago, differ, in no

material respect, from those of the present day. Hence he draws the conclusion, that the species of animals which formerly inhabited the earth have been destroyed by sudden catastrophes, and replaced by others; and that the present race is, perhaps, the fourth term in the progression.

After attempting to determine the nature and probable number of the catastrophes by which the ancient animal world was overwhelmed, as shown by geological facts; but the results of an extensive research in every part of the world have established the truth that no *human bones* are found in any regular deposits. But one of the most remarkable discoveries in geology, and one which has been greatly extended since *Cuvier's* time, is, that many large mountains, and extensive plains, are entirely formed of the putrified exuviae of extinct races of animals and a-half of stone, Soldani collected from an ounce and a-half of stone, found in the hills of Tuscany, 10,454 chambered shells. Of several of these species it takes 400 or 500 to weigh a single grain, and one species is so small that a single grain balances a thousand of them.

The recent discoveries of Ehrenberg are still more marvellous and instructive. He has found that fossil *animalcules*, or the *organic remains* of infusorial animals, actually compose the extensive strata of Tripoli, or polishing slate at Franzenbad in Bohemia. These animals have inhabited *siliceous* shells, the accumulation of which form the strata in question. The size of an animal is about the 3400th of an inch. In

the polishing slate from Bilin, where no extraneous matter is mixed with the shells, a *cubic line* contains twenty-three millions of these animals,—a cubic inch forty-one thousand millions.

The very same animals have been detected in hard minerals or gems, in the *semiopal*, in *marble*, in *chalk flints*, and even in the *noble opal* which is used in jewellery. What a singular application does this exhibit of the remains of the ancient world! While our habitations are sometimes built of the aggregate of millions of microscopic shells or infusorial animalcules;—while our apartments are heated and lighted with the wreck of mighty forests that covered our primæval valleys;—the chaplet of beauty shines with the very sepulchres in which millions of animals are entombed.

That the animals which compose these enormous accumulations of fossil remains have been destroyed by some great and sudden cause can scarcely admit of a doubt. Even in our own day such catastrophes occur on a smaller scale, from a sudden increase or diminution of temperature, from the irruption of salt water into fresh water lakes and estuaries, or from the sudden occupation of a part of the sea by a body of fresh water. M. Agassiz informs us that thousands of barbels were instantaneously destroyed in the river Glatz, in Switzerland, by a diminution of temperature of 15 degrees. In some of the deposits of organic remains, an entire shoal of the same genus of fishes has been at once destroyed, either by an excess of heat or by some noxious impregnation of the water.

In other cases the fossil fishes have a distorted position, as if writhing in the agonies of death, preserving the attitude of that rigid stage which immediately succeeds to death. In the fossil *Ichthyosauri*, the half-digested remains of fishes and reptiles have been found within their skeletons, and Dr. Buckland has discovered even the petrified faeces of these animals (to which he has given the name of coprolites) dispersed through the strata in which their skeletons are buried.

I cannot, in this brief notice of the wonders of geology, pass over the singular discovery, made by the late Rev. Dr. Duncan, of what has been called "*foot-steps before the flood*," but which are in reality footsteps before the creation of man. He observed the distinct footsteps of animals imprinted on the solid rock, in a sandstone quarry in Dumfries-shire, and similar impressions have been discovered in other parts of Scotland and in Saxony. These impressions, which I have seen, and specimens of which are shown in the museum at Warwick, are supposed by Dr. Buckland to be the footsteps of land tortoises, and he has produced perfect imitations of them by making tortoises walk over soft ground and clay. Still more remarkable footsteps, however, have been recently described and figured by Professor Hitchcock of America. He discovered them in a new red sandstone of the valley of the Connecticut, and has shown them to be the footprints of a gigantic bird twice the size of an Ostrich, whose foot measured fifteen inches length, exclusive of the largest claw, which was two

The length of the step of this bird

appears to have been about *six feet* long, and it seems to have had a curious appendage, extending about eight or nine inches behind the heel, which Dr. Buckland considers as intended to perform the part of a *snow shoe* for sustaining the weight of a heavy animal walking upon a soft bottom.

In concluding these observations, I cannot avoid directing your attention to their great importance as connected with natural theology. It is impossible to take even a superficial view of *fossil geology* without feeling the most exciting interest in its details, as well as in its general deductions. Even those who are familiar with the grander phenomena of the planetary system have acknowledged the superior power of geological truth over their minds.

The great convulsions of our globe, the dislocation of its strata, the upheaving of its molten bowels, and the entombment of successive generations of its living occupants, were events which man could neither have witnessed nor recorded. The tranquil deluge of the Scriptures could not have shattered the solid framework of the globe, nor burst its adamantine pavement. These were the effects of successive revolutions, extending far beyond the period of his occupancy; and, in tracing the remains of organic life from the most recent to the most ancient formations, we learn the humbling lesson, that the whole duration of human society, lengthened as it appears to us, is scarcely an *unit* in that extended chronology which acknowledges no "beginning save that in which the Lord created the heavens and the earth."

But this great truth, with the knowledge of which the Scriptures must be read, does not rest merely on geological facts. It is impossible that the human race could have existed while the world was in a state of preparation. Man could not have lived amid the storms, and earthquakes, and eruptions of a world in the act of formation. His timid nature would have quailed under the multifarious convulsions around him. The thunder of a boiling and tempest-driven ocean would have roused him from his couch as its waters rushed upon him at midnight;—torrents of lava or of mud would have chased him from his hearth; and if he escaped the pestilence of animal and vegetable death, the vapour of the subterranean alembics would have suffocated him in the open air. The house of the child of civilization was not ready for his reception. The stones that were to build and roof it had not quitted their native beds. The coal that was to light and heat it was either green in the forest, or blackening in the storehouse of the deep. The iron that was to defend him from external violence lay buried in the ground; and the rich materials of civilization—the gold, the silver, and the iron—even if they were ready, had not been cast within his reach from the hollow of the Creator's hand.

But if man could have existed amid catastrophes so tremendous, and privations so severe, his presence was not required; for his intellectual powers could have had no suitable employment. Creation was the field on which his industry was to be exercised, and his genius unfolded; and that divine reason which

was to analyze and combine, would have sunk into sloth before the elements of matter were let loose from their prison-house, and Nature had cast them in her mould. But though there was no specific time in this vast chronology which we could fix as appropriate for the appearance of man, yet we now perceive that he entered with dignity at its close. When the sea was gathered into one place, and the dry land appeared, a secure footing was provided for our race. When the waters above the firmament were separated from the waters below it; and when the light which ruled the day, and the light which ruled the night, were displayed in the azure sky, man could look upward into the infinite in *space*, as he looked downward into the infinite in *time*. When the living creature after his kind appeared in the fields, and the seed-bearing herb covered the earth, human genius was enabled to estimate the power, and wisdom, and bounty of its Author; and human labour received and accepted its commission, when it was declared from on high, that seed time and harvest should never cease upon the earth.

I have already said that the wonders of Fossil Geology possess in their religious aspect an exciting interest. That they are the latest acquisitions of Natural Theology is certainly not the reason why they are the most interesting. In the living mechanisms around us, and in the ordinary functions of animal physiology, we have superabundant proofs of matchless skill and benevolent adaptation; but we never appreciate as we ought these familiar exhibitions of

Divine power. There is something unclean about *animal bodies*, and their *functions*, and their *products*, which deters all but professional men from their study, and robs them of their inherent claims as incentives to piety, and as proofs of design. But the case is wholly altered when we are introduced to fossil skeletons, and examine the structure and functions of animals which inhabited the Earth long before it was occupied by man. With them nothing mortal has the least association. Time has invested them with a hallowed and mystic aspect. The green waves have washed them in their coral bed, and after ages of ablution in a tempestuous sea, the ordeal of a central fire has completed their purification. The bones, and the integuments, and the meanest products of animal life have thus become sainted relics, which the most sensitive may handle, and the most delicate may prize.

Thus ennobled in its character, the Natural Theology of animal remains appeals forcibly to the mind, even when we regard them only as insulated structures dislodged from the interior of the earth; but, when we view them in reference to the physical history of the globe, and consider them as the individual beings of that series of creations which the Almighty has successively extinguished, and successively renewed, they acquire an importance above that of all other objects of secular inquiry. The celestial creations, imposing though they be in magnitude, do not equal them in interest. It is only with *Life* and its associations;—with *Life* that has been,

and with *Life* that is to be, that human sympathies are indissolubly enchainèd. It is beside the grave alone, or when bending over its victims, that man thinks wisely, and feels righteously. When ranging therefore among the cemeteries of primæval death, the extinction and the renewal of life are continually pressed upon his notice. Among the prostrate relics of a once breathing world, he reads the lesson of his own mortality; and in the new forms of being which have marked the commencement of each succeeding cycle, he recognises the life-giving hand by which the elements of his own mouldered frame are to be purified and re-combined.

Such is a brief and general notice of those branches of knowledge which should occupy a prominent place in a course of popular instruction. The objects which they describe, and the phenomena which they explain, are those of the material universe—the great expanse of creation, upon which omnipotent power and matchless wisdom are most brightly displayed. In recommending to you these studies, it is not so much to qualify you for the positions which you occupy—it is not merely to make you more intelligent companions in the social circle—it is not even to inflame your piety, or keep you from the vices which ignorance and idleness engender—nor is it to impress upon you the humbling fact that the great globe which you inhabit, with its millions of occupants, is but an atom whose annihilation would not be felt in the universe. It is to teach you the proud lesson which so few have learnt—the sublime and ennobling truth, that each of you

is a responsible individual in the great family which inhabits the universe—a working unit in the sidereal worlds of animal and spiritual life, having a specific part assigned you in carrying out the arrangements of its Author. The beggar, whose home is in the street, and the sovereign, who sits upon a throne, have, though they may know it not, a part equally important to play. This part, whatever it may be, is the great social duty of man. His prejudices, his interests, his passions, his thirst for fame or for gold, combine to thwart him in its performance. Even when he has formed his opinions, the man of the world dare not avow them; even when he knows his duty, he dare not do it. Moral cowardice is thus the greatest of our social vices—moral courage the highest of our social virtues.

In your hours of meditation, then, but especially in seasons of moral perplexity, contemplate the material creation to which you belong. Look down from your lofty position. View your earth-home from afar, till its concerns disappear in the remote perspective; and the lesson thus learnt will act with a high pressure upon your spiritual being—nerving the wavering mind, calming the palpitating heart, and fixing the irresolute will. Age, with its waning passions and its swelling hopes, will rejoice in the truth which it has learnt in manhood, and the disembodied and justified spirit will make a joyous entrance into its eternal home.

ADDRESS

DELIVERED TO THE MEMBERS OF

THE GLASGOW ATHENÆUM,

ON THE 11TH Nov., 1851,

BY HENRY GLASSFORD BELL, ESQ.

GENTLEMEN,—My first duty on the present occasion is to embrace the opportunity it affords me of acknowledging very gratefully the honour you have conferred upon me in electing me President of this Institution. I could receive few honorary distinctions which I would more highly prize. I succeed men of great intellectual eminence and moral worth, who have already filled this chair ; and, though personally unacquainted with a large majority of the members of the Athenæum, they have, unsolicited, and, as I learn, unanimously, bestowed upon me this mark of their confidence and respect. Gentlemen, I am proud of such a compliment. There is not, in this my native town, nor in any town in which similar institutions exist, a more intelligent body of men than that of which this prosperous association is composed ; and no one need blush to confess that it must be to him a source of great and honourable satisfaction to stand so fair in the opinion

of its numerous members as to receive from them the highest appointment in their gift. I would that I could approve myself more worthy of your choice. I feel at all events that it affords me an additional motive for exertion, and renders still more fervid the anxiety I have always entertained to discharge, as faithfully as I can, the duties, public and private, which Providence has allotted to me. Once more let me tender you my thanks before proceeding to address you on less personal themes.

The sight which I see before me to-night is one which, to every intelligent mind, should be full of interest. I see assembled in one of the most beautiful halls of this great city an ardent and enlightened audience, belonging to an important institution, established expressly to afford facilities for moral, intellectual, and physical improvement, and now exercising a material influence on the character and habits of hundreds—I believe I may say of thousands—of the inhabitants of Glasgow. In the eloquent, high-toned, and scholarly address delivered to the members of the Athenæum by his Grace the Duke of Argyll, in January last, he asked, not doubtingly but hopefully, “Is this mighty heart, beating so high with the pulse of human life, beating also as high with every generous sentiment and moral and religious feeling? Of this vast population, can it be said, even figuratively, that it is not only growing in stature, but in favour with both God and man?” Let us humbly trust that this awakening question may be answered in the affirmative; let us at all events resolve, and let our meeting

here to-night be a pledge of the resolution, that nothing shall be awanting on our part to aid in so great, so good, and so holy a cause. It is an old-established truth that intellectual culture and moral improvement go hand-in-hand. He who appropriates to himself even the smallest portion of the inexhaustible riches which the worlds of science, of art, of literature, and of philosophy contain, cannot fail at the same time to enlarge his moral sentiments—to soften and refine his heart. The universal applicability of this ethical law makes it, perhaps, less vividly felt than it ought to be ; but we may bring the matter, I think, more directly home to our own bosoms, by viewing it in connection with our own position in life, and considering for a moment what it is that truly stamps that position with a character of happiness or of misery—with prosperity in its widest and best sense, or with depression, insignificance, and gloom.

There is one great fact, which cannot be too strongly impressed upon us, that the main elements of human felicity are few and simple, are patent to all alike, and are within the reach of moderate attainment. They consist in health, in the means of subsistence, and in a mind and heart so cultivated and attuned as to be capable of intellectual and moral discrimination and the exercise of the affections. Simple, and I may say common, as these elements are, neither wealth nor human power can add to them a fourth which would open up sources of enjoyment so comprehensive as are embraced in each of the other three. It may be affirmed, therefore, that Providence permits all men

to start equal as regards their chances of happiness. Health is the rule—sickness the exception; the means of subsistence are, in all ordinary circumstances, within the reach of all; and every human being who has a soul to be saved is endowed with a mind, a conscience, and the capacity of loving and of hating. If, therefore, the pardonable selfishness of our nature makes such happiness as is consistent with virtue (and there is none other) the great desideratum in life, it is surely consolatory to know that the Creator makes no distinction of persons throughout the whole human family in the distribution of those elementary constituents on which the enjoyment of existence chiefly depends.

Nevertheless, it must not for a moment be supposed that it was ever intended all men should remain equal as they pass through the world—that there should be no distinctions in civil society—of wealth, of rank, of power, and of happiness. The very fact that men come into the world with different degrees of physical strength, with different proportions, with different powers of sense, to say nothing of original intellectual differences, dissipates at once any dream of equality. But what I at present wish more particularly to draw your attention to is that social distinctions, arising from worldly possessions, or hereditary rank, or civil power, by which one man's position is apparently raised above another's in the community to which both belong, afford no such index to the real amount of happiness which each individual enjoys as is afforded by the knowledge that he has a sound corporeal and

mental constitution, and that he eats the bread of industry. It has been well said, by a recent writer on political economy, that all human evils which are incident to one class and not to another, are remediable ; and it might have been added, that where one class is subjected to a particular description of evil, it is commonly compensated by being exempted from some other evil which lights elsewhere. The very facilities which worldly advancement affords for carrying the primary elements of happiness too far often lead to a diminution, instead of an increase, of the good we are in search of. Thus, health is a blessing, but healthy appetites have their limits of enjoyment ; and the means of pampering them give birth to maladies from which they who are confined to a humble competence are exempt. It is not always in the families of the wealthy that we find the rosiest health and the soundest slumbers. Nay, even great intellectual attainments, or a highly-cultivated taste for all the elegancies of life, not unfrequently bring along with them cares and anxieties of their own. If long life be, as it commonly is, any test that life has passed smoothly and pleasantly, then it is a remarkable fact that the best class of lives is found in the friendly societies consisting entirely of members of the working-classes. Their average vitality is better than that of the ordinary tables of insurance, and better even than that of the Government annuitants, who might be thought to have a strong hold on life. What is perhaps still more striking is, that, comparing the average vitality of the whole working-classes with that of the whole peerage, the latter is the lower. It

is very considerably under the average vitality of the kingdom, and is to a still greater degree under the most favourable average of the friendly societies,—that is, friendly societies in rural districts. It is stated in a work, entitled “Contributions to Vital Statistics,” published, in 1845, by F. G. P. Neison, actuary to the Medical Invalid and General Life Office, that “it could be clearly shown, by tracing the various classes of society in which there exist sufficient means of subsistence, beginning with the most humble, and passing on to the middle and upper classes, that a gradual deterioration in the duration of life takes place; and that just as life, with all its wealth, pomp, and magnificence, would seem to become more valuable and tempting, so are its opportunities and chances of enjoyment lessened.” “As far as the results of figures admit of judging,” the author adds, “this condition would seem to flow directly from the luxuriant and pampered style of living among the wealthier classes, whose artificial habits interfere with the nature and degree of those physical exercises which, in simpler classes of society, are accompanied with a long life.”

Let us, then, in moralising our lot, and endeavouring to know something of ourselves, begin with acknowledging the fundamental axiom, (too often, I am afraid, lost sight of,) that the best elements of happiness are the common inheritance of all, and that the artificial, or, more properly speaking, the natural and necessary distinctions of society have but little influence over them. “When Burns, in his better days,” says the late Francis Jeffrey, “walked out in

a fine summer morning with Dugald Stewart, and the latter observed to him what a beauty the scattered cottages, with their white walls and curling smoke shining in the silent sun, imparted to the landscape, the peasant-poet answered that *he* felt that beauty ten times more strongly than his companion, and that it was necessary to be a cottager to know what pure and tranquil pleasures often nestled below those lowly roofs, or to read in their external appearance the signs of so many heart-felt and long-remembered enjoyments." Beautifully, also, has the poet Wordsworth asserted the equal diffusion of a capacity for virtue and enjoyment—

" Believe it not !

The primal duties shine aloft like stars ;
The charities that soothe, and heal and bless,
Are scattered at the feet of men like flowers :
The generous inclination, the just rule,
Kind wishes, and good actions, and pure thoughts ;
No mystery is here, no special boon
For high and not for low, for proudly graced,
And not for meek of heart. The smoke ascends
To heaven as lightly from the cottage hearth
As from the haughty palace."

Having so learned to think of all our brethren of mankind, the next proposition which I would submit to you is, that the necessity for labour imposed by God on man, meaning by labour exertion either bodily or mental for useful purposes, is not only no calamity but is the fountain whence much of our purest happiness flows. Constituted as we are it is not labour but inactivity that is an evil. It is not

labour but idleness that is visited in the dispensations of Providence with suffering and disease. Labour is twice blessed—first, in the actual work done which advances some design of utility; and, second, in the indirect beneficial object which it attains, such as providing for the wants of an individual or a family, and calling into action faculties which might otherwise have lain dormant. True, there is inequality of labour; and such inequality ever has been, and ever will be; because there is a natural and inherent inequality of capacity for labour; and it is the inequality of labour that leads to the inequality of social rank. It is he who labours hardest who, in all probability, will rise highest. But a great error is frequently committed in the definition of what hard labour is. If labour be, as I have defined it, exertion for a useful purpose, mere occupation and labour are two very different things. Real labour is not measurable by time, but by what it produces. The higher we rise in the intellectual scale of labour, the harder it becomes. He who works with his head works hardest of all. The mere daily expenditure of a certain amount of physical strength or muscular dexterity, in doing what a piece of mechanism can be made to do as well, or better, is labour of the most inferior kind, and can never command large remuneration, for the useful result is comparatively insignificant. "It is written in the unalterable laws of human nature, that no trade shall continue to be at the same time lucrative and easy." The lower down we come in the scale of exertion, the larger we find the multi-

tude of competitors. We have thousands of handloom weavers for one Watt; tens of thousands of breakers of stones and hewers of wood for one Newton.

In a very excellent treatise on political and social economy, which I recommend to your attentive perusal, by Mr. John Hill Burton, he very ably enforces these views:—"No one can contemplate," he says, "the industrious classes of this country without seeing how much more intensely some work than others. Occupation and labour are not the same thing; and two men may be occupied for the same length of time, the one working twice or thrice, nay, eight or ten times as much as the other."

Bear it, then, ever in mind, that it is not continuity but intensity of exertion—not time given but value produced, that must always obtain the highest remuneration. The difference in money-wages represents a difference in actual services. One sort of work is accomplished simply by the endurance of a certain amount of bodily fatigue; another is performed only by drawing on mental resources, and by throwing skill and intellectual energy into the task. In the one case the labour is nearly all animal; in the other it is nearly all mental, with this addition, that as the mind must be cultivated before the desired result can be obtained, and as physical fatigue must certainly accompany severe mental cultivation, the head labourer tasks both his body and his mind. Justice demands, therefore, that the wages or remuneration of a great votary of science, a great statesman, a great

lawyer, a great physician, a great merchant, or a great natural philosopher, should bear no proportion to the wages of him who tills a field or clips a hedge. Labour, which is not only of the greatest utility to the community, but carries a man beyond the sphere of his fellows, and ends in results which but a few possess the power of educating, can never be placed in the same category with that species of labour which may be performed by almost any one who chooses to give the necessary time, and which results in only the most humble and common-place amount of benefit to the community. A few months may make tolerably good labourers of the latter description; but it takes long years of arduous study and unremitting exertion to make a Herschel or a Stephenson.

What length, then, have we got in our view of the social economy? We find, *first*, that a capacity for happiness is very equally distributed; *second*, that labour is a condition of our existence; *third*, that this condition, so far from detracting from, greatly adds to our chances of happiness; and *fourth*, that the labour which is the result of mental cultivation, and is accompanied with intellectual exertion, is at once the most useful, the most elevating, and the most remunerative. Are not these truths of a highly encouraging nature? We are called upon to feel compassion for no man that he labours. All that the philanthropist need be anxious about, is to diminish the mass of unskilled labourers, seeing that the more this is done the more the general character of the community will be elevated. If every class could be

induced to ascend the ladder by only a few steps, then there would be a visible increase in the number of the superior intellects, and a visible decrease in the number of the inferior. This is what the progress of civilization has already effected over vast tracts of country; and this is what we should be all desirous to carry on farther and farther in our own localities, and in our own day and generation. This is what you, the members of the Glasgow Athenæum, are bound to endeavour to do for yourselves.

Let me not, at the same time, be misunderstood as too much undervaluing the unskilled, or the slightly skilled labourer, or as wishing to inculcate the doctrine, that society could dispense with them altogether. There must always be a very numerous class of this description, who labour according to their capacities and opportunities, and no one entertains a sincerer respect than I do for the steadily industrious, however humble their department of labour, and no one would be more anxious to see the circumstances of their condition improved in every possible way. Do not let us forget that the founders of some of the greatest fortunes in the kingdom have been the sons of fathers who were themselves little better than unskilled labourers; and it is the chiefest glory of the free institutions of this free nation, that wherever there is energy, judgment, and perseverance, a path may be discovered which will lead from the lowest and the humblest walks of life to the highest and most honourable. But had the founders of these fortunes taken with them into active life the same placid indolence,

or contentment with unintellectual occupation in which their fathers lived, they need never have left the paternal roof for the turbulent abyss of mighty cities. "The youth indulging in the first aspiration of ambition," says the writer I have already quoted, (Mr. Burton,) "and longing to struggle with the world, is finely described in the lines—

'Eager-hearted as a boy when first he leaves his father's fields,
And beholds along the dusky highway, near and nearer drawn,
O'er his head the lights of London flaring like a dreary dawn.'

It is the red glare sent up from the lights kindled by science to meet the wants of millions packed together as in a hive, who must see by night as well as by day. It is dreary, according to the poet's expression, in comparison with the dawn that arises over the dewy fields, and the copse alive with early birds; but it hangs over that stirring world where the youth has chosen to cast his lot, and he must pursue his aim with stern purpose. If he do, the dreariness will be forgotten, and he may some day find that an interval of well-earned leisure in his paternal fields is an enjoyment doubled by the contrast."

Gentlemen, life with all that life may yield is still before most of you; and your temporal destinies are yet for the most part in your own hands. You are fortunately in that position in society that you are not at the foot of the ladder, but many steps up. You have the privilege of being skilled labourers. You know that your noblest aim in this world is to do what in you lies to render yourselves worthy of a better. Alas! this is at the best but a chequered scene; and

man has many grim enemies to contend with in his short sojourn upon earth, such as adverse fortune, and cold selfishness, and supercilious pride, and envy, and misrepresentation, and his own evil passions, and disease, and death. But there are antidotes to all those evils, and an active mind and an honest heart can rise above calamities which would otherwise be more than human nature could endure.

To one or two of those antidotes permit me now briefly to advert; for he who knows the cure need be afraid of no malady. You have already heard and seen much within the walls of this Institution that was calculated to strengthen your minds and to guide and direct you. Several of the eminent men who have addressed you from this chair have thrown out many admirable suggestions as to the course of literary or scientific studies you were best to pursue. I shall not enter on so wide a theme, nor go over ground which has been already so well mapped out. I shall content myself with touching only on some collateral topics.

I take it for granted that the real business of life—by which I mean the trade, profession, or permanent pursuit with which you connect yourselves—will always occupy a large portion of your time and thoughts. But this will not fully satisfy the cravings of your mind. In your search after intellectual happiness, your intellect will be brought to bear upon numerous subjects. You will look into the history of the past, to contrast it with the great historical events of the present, of which you yourselves are spectators. You will be desirous to understand and compare different forms of

government, different codes of law, different systems of social polity. You will rejoice to be able to bring to the consideration of various important questions affecting the political, moral, or commercial prosperity of your own country, light drawn from the experience of other ages and other nations. You will thus be able to view, as from an eminence, the conduct and actions of men; and you will learn that it is always they who are able as yet to see but a few yards around them who are the most confident in their own opinions—the most violent—the most prejudiced—and the least to be trusted. You will learn that they who have opened up for themselves the widest range of intellectual prospect, are generally distinguished by sobriety of thought, great candour, self-diffidence, forbearance, and calm judgment. You will clearly perceive that the crowds who are down in the vallies, or only labouring at the first ascent, are far less entitled to your respect and confidence than the few who have already reached the mountain tops, from whence they can distinguish with ease a thousand things that are invisible at a lower altitude:—

'Jam monte potitus

Ridet anhelantem dura ad fastigia turbam.

The highest quality of intellect is sound judgment, and sound judgment must always be based upon accurate knowledge. The ignorant are invariably unsafe counsellors; the well-informed are trusted and sought after in every department. A thorough knowledge of a few subjects is better than a superficial acquaintance with many. Most men feel that they have a more

perfect knowledge of some one or two subjects than of others, and they should be diffident as to these others. The dogmatism of ignorance is at the root of much that tends to embitter society. Intellectual enjoyment, to be pure, should be accompanied with a modest spirit of inquiry—a wish to be taught rather than to teach, and a belief in the possibility that, when we differ with others, it is we and not they who are in the wrong.

Among the ordinary means of mental improvement, we are called upon not to neglect many of daily occurrence, such as access to good libraries, the society of persons of scientific attainments, public or private classes for the acquisition of different branches of knowledge, and lectures upon useful and interesting subjects. Attendance also, when opportunities offer, upon public assemblies where our senators, lawyers, or divines, discuss grave and important questions, is not to be discouraged. Permit me, however, here to say, that I have of late years observed with regret a growing tendency among the inhabitants of large towns, and I fear Glasgow cannot be excepted, to run after with too much eagerness, and too little discrimination, persons of temporary notoriety, who, trusting to the accident of some momentary excitement, take upon themselves the office of itinerant instructors. Frequently they “come as shadows, so depart.” We know little or nothing of them before their arrival: we know as little of them after they have gone away. To be a public instructor on any large subject of ethics, or social economy, or civil government, or theological

science, is no light undertaking, and requires, above all, the accompaniment of high personal character that has stood the test of years. There may be a pleasant excitement in listening to a strange orator who says new and startling things; but I fear it is at the best only a species of intellectual dram-drinking. The men whom we can safely trust as guides are not the men who are every now and then thrown to the surface by the force of circumstances, and who hasten to turn their brief popularity to account. Our guides should rather be the men whose rise and progress we have seen, whose history we know, whose characters we can vouch for, who have long sat in honoured places, who have graced our schools, our pulpits, and our universities. We do not find such men passing from platform to platform to pour into the ears of too credulous listeners doctrines and opinions which would often need to be thrice winnowed before they could be safely considered wholesome. I do not say that these sudden and frequently very fiery meteors are to be shunned altogether; some of them are perhaps working for good; but this I say, that we shall do neither them nor ourselves any wrong by exhibiting towards them a due amount of our national caution and reserve.

Let us now turn for a moment from subjects requiring the exercise of more abstract intellect to that new and beautiful field of pure and innocent enjoyment which opens upon us in the cultivation of taste, and of a love for the Fine Arts. The fruits of that magnificent enterprise, the triumphant success of which we have all been privileged to see during the

past season, are yet to be gathered ; but I doubt not they will fall as a golden shower upon the land, and that fresh life and vigour will, in many departments, be infused into arts and manufactures. Peace has achieved many victories ; but none greater than this, which we owe to the wisdom of our Prince, and the ever-ready patriotism of our Queen. I trust that many influences from that wonderful and beautiful scene will radiate in this direction ; and I trust that an impetus in favour of the fine arts will be one of them. I fear that it is something of a reproach to us that we have scarcely as yet manifested a sufficient sense of the importance of these arts as a mighty engine for softening and elevating the character of the people. It is indeed impossible in this point of view to overrate their power. The fine arts speak a universal language. They belong not to any one nation—they are human, and nothing that is human is foreign to them. They are fettered by the peculiarities of no idiom ; they have not to contend with the limited meaning and feebleness of words. Ariosto or Dante are but little known except to the Italian scholar ; Raphael is as easily appreciated in France, Spain, Germany, or England, as in Italy. A perception of the beautiful and the grand in art is equivalent to the possession of another sense, for it supplies a new power of reading and apprehending the beauties and sublimities of the natural world.

Consider for a moment the subjects in which art delights, and which it has spread in profusion over the whole civilized world. By its highest efforts our

minds are raised to the awful sublimity or tranquil beauty and benign goodness of spiritual natures, or are roused by the tremendous fall of rebel angels and Titans, or overwhelmed with emotion by the visible representation of a day of judgment, the happiness of the righteous, and the despair of the wicked. Or, again, the patriarchs, the apostles and martyrs of our holy religion, are placed before us, and our thoughts are carried back for centuries into the early times of Christian trial and fidelity; and we see, as in a glass, the noble actions, and undaunted deportment, and conscious integrity, of these august defenders of the new-born faith. Descending to less sacred themes, the whole page of history becomes the painter's property. No act of self-devoting patriotism, no triumph of liberty over oppression, no august assemblage of philosophers and statesmen, no incident of national glory, or of individual heroism, but may be again presented to the eyes of posterity, and in a shape so impressive that the lessons of years may as it were be concentrated into the glance of a moment. Passing from the events of history to the scenes of private life, what an infinite variety of subjects has the artist found in tracing through all the mazes of intelligence and passion, the operation of human affections in the different relations of society! There is no condition, however humble, where he does not discern the existence of moral and physical beauty, and by communicating that discovery he aids in elevating and refining the mind of the spectator. Then comes portraiture to fix on canvass the features of the mighty

dead—to hand down to posterity the likenesses of men destined for all times—such likenesses as Apelles painted of Alexander the Great, Raphael of Julius the Second, Titian of Paul III., Velasquez of Innocent X., Rubens of the Duke of Alva, and Vandyke of Charles the First and his unhappy Queen. And, even in ordinary society, how many a kindly feeling is awakened by the genial portrait on the wall! In cases of separation by distance or by death, how much of consolation has often been found in the works of the portrait painter!

“For thou, serenely silent art,
By heaven and love wast taught to lend
A milder solace to the heart,
The sacred image of a friend;
No spectre forms of pleasure past,
Thy softening, sweetening tints restore,
For thou canst give us back the dead,
Even in the loveliest looks they wore.”

Turning from animate to inanimate Nature, the landscape painter takes his place beside the best of the descriptive poets. One half of the charm of life may be said to depend upon scenery, and the changes which the revolving seasons continually operate upon it. With what grateful pleasures do all ranks and classes, pent up in crowded cities, betake themselves from time to time to what is emphatically called the *country*! The very word seems to carry along with it hopes of future enjoyment and a balm for present affliction. The irksomeness of artificial life is cheered with the prospect of returning again to universal Nature. When the due time arrives, the weight of

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many cares seems to fall off from the uncumbered spirit, and we feel how truly Cowper has said—
 "God made the country, and man made the town."

The summer ocean, the golden sands, the fisher's boat, the sail gleaming afar off, the light cloud reposing in the deep blue of ether, the inland woods, the streams among the hills, the gray ruin, yellowed in the sunlight, looking out over the greenness of forest boughs, the invisible but perceptible existence of myriads of living things on earth and in air, the ever-changing sights and sounds, the repose, the tranquil beauty of everything around;—what other blessings could compensate for the loss of these, and the effect they are calculated to produce on the mind and the heart! And if loftier or sublimer emotions be wished, how are they to be supplied more readily than by means of scenery? The storm among the mountains, the winds let loose upon the sea, the gigantic forms of winter or autumnal clouds piled mass above mass, the dim obscurity of dawn, the solemn tenderness of twilight—without these how many noble impressions of grandeur, awe, power, over-ruling design, would man miss! Hence, therefore, in the most splendid gallery the fine landscape takes its place beside the finest works of any other class. So universal, indeed, is the appeal which the landscape painter makes to the principles of our common nature that there is no room, even in ordinary and domestic life, which may not receive additional interest from the productions of his pencil. If the historical painter be greater, it is only because man is a higher subject than the works which

seem to have been made for the use of man. But the landscape painter looks at these works with the clear eye of philosophy, and the earnest enthusiasm of genius. By a beautiful dispensation of Providence, the mere aspect of external Nature is rendered as capable of speaking to the heart as the living acts and language of man. In our own land in particular—in this our Scotland, where an almost romantic love of country has ever formed one of the best features of the national character—a field worthy of the largest ambition of the landscape painter is before him. In the gorgeous magnificence of our changing sky there is a gloriousness and grandeur which is not to be found in more southern climates. There is hardly any combination of wood and water, plain and mountain, bosky dell and rocky promontory, which may not be met with at our own door; and if objects of moral or historical interest be wanted, there is the feudal fortalice, the cloistered abbey, the mouldering castle, the moss-covered monument, the fields of conflict, the scenes of old traditionary story.

Nor, in speaking and thinking of the fine arts, let us forget its noblest department—Sculpture. Severe in the consciousness of its own strength, sculpture rejects many accessories in which painting takes delight. The essential element of beauty is form, the excellence of which, so far from being impaired by the absence of any accessory, is, when properly understood, only rendered the more intense and pure. The sculptor conceives of a higher order of beings, placed beyond the influences which obscure the original

dignity and grace of the human form. He reverts in imagination to that golden age in which, according to the poets of the heathen world, the gods and demigods of their fabulous mythology made themselves manifest upon earth in the brightness of perpetual youth, undimmed by passion and unimpaired by disease. The very materials with which he has to work, "the grey solemn tints of stone, the semi-transparent purity of marble, the polished smoothness of ivory, the golden splendour or darkened green of bronze," reject as incongruous all subjects and characters which are not instinct with dignity and elevation. Acting upon these high principles, the great Greek sculptors, Phidias, and Praxiteles, and Lysippus, and Alcamenes, produced, between two and three thousand years ago, those works which still "enchant the world," proving how true it is that

"A thing of beauty is a joy for ever!"

Through what vicissitudes have these time-honoured sculptures passed since they first started into life beneath the chisel of the Greek! They have witnessed, if we may so speak, the decay of Grecian greatness—her last struggle for independence—her final subjection to the Romans; they have seen Rome the mistress of the world; they have seen her fall to pieces by her own greatness; they have seen the old romantic mythology, under the influence of which they were themselves created, fade away from the world like a morning dream; they have seen barbarians rushing in like the waves of the ocean upon the seats of refinement and luxury; darkness and

confusion followed, and they were themselves buried among the ruins. From these ruins they have again been dug up after the lapse of centuries, and they now stand in the halls of kings whose people speak a new language, or under the roofs of temples dedicated to a later but holier faith revealed in the fulness of time.

How inexhaustible, then, are the subjects presented to us in the contemplation and study of the works of the great masters of art! The source of one of the most elevated pleasures of which the mind is susceptible would be dried up had sculpture and painting never existed, or were the world to lose the productions of such men as Raphael, Titian, and Michael Angelo, the golden sunshine of Claude, the exuberant richness of Rubens, or the tender loveliness of Correggio, the energy of Julio Romano, the joyful boldness of Annibal Carracci, or the inexhaustible profusion of Tintoretto. How many noble thoughts and high lessons would have been withheld had we never seen the severe grandeur of Poussin, the earnest enthusiasm of Murillo, the patrician dignity of Velasquez and Vandyke, the Sistine Chapel, the Vatican, the Last Supper, the Transfiguration, the Cartoons! Is not a face by Giorgione or Rembrandt a fountain of deeper thought than hundreds that surround us in ordinary life? Who is more graceful than Parmegiano—who more lovely than Guido? Would human eye ever again have beheld a dead man rising from the grave if Sebastian del Piombo had not painted the Lazarus? What more sublime than the St.

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Jerome of Domenichino—what more gorgeous than the Marriage at Cana of Paul Veronese—what more wild and grand than the Alpine solitudes of Salvator Rosa? Let not the moderns grudge the praise that is due to their great predecessors, who, though dead, yet speak, who found out a new sphere for the development of intellect, a new mode by which to humanize mankind, a new evidence of a heavenly origin, and an immortal destiny.

Feeling thus on the subject of the fine arts, it must give us all the greatest pleasure to know that a movement has lately been made in this city of an important character, having for its object the erection of an elegant public building, which shall contain beautiful public galleries dedicated to the purposes of art. The throwing open of such galleries will, I am convinced, be of the utmost service to the cause of art, and will be hailed with satisfaction by the whole of our commercial and manufacturing population. Large annual exhibitions of the works both of modern professors and of ancient masters, harmoniously arranged in suitable halls, cannot fail to attract crowds of visitors; and I much mistake the character of our citizens if, when the proper spirit is once roused, they do not carry forward the undertaking in a manner that will at once attest their earnestness in the cause, and their determination to hold no second place among the promoters of so good a work. Glasgow will thus show to all the world that her merchants and her shopkeepers, her busy traders and her ingenious artisans, toil for something more than the mere

amassing of wealth, and know how to make wealth valuable, by bringing it to the aid of all that refines the taste and elevates the moral sentiments.

A few words more, and I have done, if I have not already transgressed too long upon your patience. The idea I chalked out for myself in this Address was to touch upon certain of the great elements that affect our social condition. I have endeavoured to show you how Divine Providence brings the means of happiness to every man's door—how labour, in some shape or other, is necessary to rational existence—how great a duty it is to render that labour as intellectual and as conducive to useful results as possible—how the acquisition of knowledge, and the study of those subjects which most affect human interests should, for our own sakes, go hand in hand with the ordinary business of life—and how also we should endeavour to combine with the occasional dryness and severity of abstract intellectual acquisitions the graces and refining influences of those arts whose followers worship the beautiful. A grander theme than any yet remains, but one which I can do little more than indicate, I mean the cultivation of our moral nature—the purification of the heart and the heart's affections; and this more especially with the view of fitting us for domestic life, and of making it—what domestic life should ever be—the fountain from which the holiest draughts of earthly felicity are drawn. Abroad in the world men may find respect, and wealth, and worldly influence; but it is not till they cross the threshold of their own homes, and feel how genuine and disinterested the love

is that there awaits them, and how faithfully and entirely they can reciprocate such love, that the wearied spirit finds real repose, and reaps a reward better than a mantle of purple or a crown of gold. Let it not be forgotten, however, that the exquisite pleasure derivable from the endearing ties and beautiful relations of domestic life can be experienced only by those who have a conscience at peace and a well-regulated moral nature. In the heyday of youth, before the passions have been subjected to control, or the worthlessness discovered of some of the objects of most ardent pursuit, it is hardly to be expected that the full value of this source of enjoyment should be acknowledged; but thrice happy is he who early seeks for it, and who in his riper years thoroughly possesses it.

It is plainly the will of the great Ruler of the universe that mankind should be divided into families; and in the bosom of their own family, be it large or be it small, most men spend the bulk of their existence. It is there that the relations arise of father, husband, brother, son, master, friend, companion, mother, sister, wife. Shadowed with cares as life must always be, what a mine of happiness is each of these words capable of suggesting! To the highest and to the lowest belong the affections. A palace would be a dungeon without them, and how beautiful is the cottage that is full of them! The mighty cannot command love; they must win it; and so may the humblest—

“ — repining not to tread

The little sinuous path of earthly care,

By flowers embellished, and by springs refreshed.”

Well has the gentle and eloquent Jeffrey said—
“When the inordinate hopes of early youth, which
provoke their own disappointment, have been sobered
down by longer experience and more extended views
—when the keen contention and eager rivalries which
employed our riper age, have expired or been abandoned—when we have seen, year after year, the
objects of our fiercest hostility and of our fondest
affections lie down together in the hallowed peace of
the grave—when ordinary pleasures and amusements
begin to be insipid, and the gay derision which
seasoned them to appear flat and unprofitable—when
we reflect how often we have mourned and been
comforted, what opposite opinions we have maintained
and abandoned, to what inconsistent habits we have
gradually been formed, and how frequently the objects
of our pride have proved the sources of our shame,
we are naturally led to recur to the careless days of
our childhood, and from that distant starting-place to
retrace the whole of our career, and that of our con-
temporaries, with feelings of far greater humility and
indulgence than those by which it had been actually
accompanied; and to think all vain but affection and
honour, the simplest and cheapest pleasures the truest
and most precious; and generosity of sentiment the
only mental superiority which ought either to be
wished-for or admired.”

The sooner that these views of life, and of the
priceless worth of the ordinary amenities and common
affections of life, can be formed the better. Short is
the time that is given to the longest liver. “Passing

away' is stamped on all we love:"—the statue falls from the pedestal—the pillar of the temple crumbles into dust—change and death are among us—

"Like clouds that rake the mountain summits,
Or waves that own no curbing hand,
How fast has brother followed brother,
From sunshine to the sunless land!"

Let us, then, cherish the purifying affections that remain; let us "keep our hearts with all diligence, for out of them are the issues of life;" let our sympathies be strong and far-extended; let us avoid the too common error of feeling, on the one hand, something of envy or jealousy towards those who have pressed on before us in the ranks of life, or of imagining, on the other, that those who remain behind in the lower and humbler paths may not possess wisdom and worth entitled to all admiration. Above all, whatever misfortunes or afflictions overtake us, let us ever rejoice to know that we have still a harbour of refuge in the divine truths of religion—that religion which strengthens love, and purifies ambition, and tranquilizes sorrow, and compensates a hundredfold for any sacrifice it may call upon us to make of worldly objects of allurements.

Gentlemen, if, in the imperfect observations I have now ventured to submit to you, I have suggested any useful thoughts,—if I have awakened any train of ideas that may lead you to meditate with no unpleasant emotion on the duties and the hopes that lie before you,—if I have in any way aided in inducing you to return to your own homes with a more fervent desire

for self-improvement,—if I have suggested to your minds with any feeling of freshness the truth that while possessions vanish, and opinions change, and passions hold a fluctuating seat, duty for ever exists, subject neither to eclipse nor wane—then I have done all I hoped or wished to do. I do not doubt that, with God's help, you will all pursue the honourable career you have so well begun, and that,

“While tens of thousands falter in their path,
And sink thro' utter want of cheering light;
For you the hours of labour will not flag,—
For you each evening have its shining star,
And every Sabbath-day its golden sun!”

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